U.S. DEPARTMENT OF COMMERCE
National Technical Information Service

PB-286 262

Lake Mead, Clark County, Nevada
Mohave County, Arizona

(U.S.) National Eutrophication Survey, Las Vegas, NV

Prepared for

Environmental Monitoring and Support Lab, Las Vegas, NV

Sep 77

PB 286 262

U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL EUTROPHICATION SURVEY

WORKING PAPER SERIES

CORVALLIS ENVIRONMENTAL RESEARCH LABORATORY - CORVALLIS, OREGON

and

ENVIRONMENTAL MONITORING & SUPPORT LABORATORY - LAS VEGAS, NEVADA

REPRODUCED BY
NATIONAL TECHNICAL
INFORMATION SERVICE
U. S. DEPARTMENT OF COMMERCE
SPRINGFIELD, VA. 22161

☆G.P.O. 699-440

Report

on

Lake Mead

Clark County, Nevada

Mohave County, Arizona

EPA Region IX

Working Paper No. 808

With the cooperation of the

Nevada Environmental Protection Service

and the

Nevada National Guard

September, 1977

TECHNICAL REPORT DATA
(Please read Instructions on the reverse before completing)

1. REPORT NO.	2.	3. RECIPIENT'S ACCESSION NO. PB286262
4. TITLE AND SUBTITLE Report on Lake Mead Clark County, Nevada Mohave County, Arizona		5. REPORT DATE Prepared September 1977 6. PERFORMING ORGANIZATION CODE
7. AUTHOR(S) Anonymous (National Eutrophication Survey Staff)		8. PERFORMING ORGANIZATION REPORT NO. Working Paper # 808
9. PERFORMING ORGANIZATION NAME AND ADDRESS Environmental Monitoring and Support Laboratory P.O. Box 15027 Las Vegas, Nevada 89114		10. PROGRAM ELEMENT NO. 1BA029 11. CONTRACT/GRANT NO.
12. SPONSORING AGENCY NAME AND ADDRESS Office of Research and Development U.S. Environmental Protection Agency 401 M. Street, S. W. Washington, DC 20460		13. TYPE OF REPORT AND PERIOD COVERED Final - Nov. 1974 - March 1976 14. SPONSORING AGENCY CODE

15. SUPPLEMENTARY NOTES

Prepared in cooperation with the U.S. Environmental Protection Agency, Pacific Northwest Environmental Research Laboratory, Corvallis, Oregon 97330

16. ABSTRACT

Annual total phosphorus and total nitrogen loadings to the lake were estimated and subdivided according to either point or non-point source origin. An assessment of the lake's trophic condition and limiting nutrient is also provided. All data collected by the U.S.E.P.A. National Eutrophication Survey during the one year study of the lake and its tributaries are included in the report.

17. KEY WORDS AND DOCUMENT ANALYSIS

a. DESCRIPTORS	b. IDENTIFIERS/OPEN ENDED TERMS	c. COSATI Field/Group
eutrophication lakes nutrients phosphorus nitrogen loading	National Eutrophication Survey Lake Survey	05B 05C

18. DISTRIBUTION STATEMENT Release Unlimited	19. SECURITY CLASS (This Report) Unclassified	21. NO. OF PAGES 100
	20. SECURITY CLASS (This page)	22. PRICE A05-A01

EPA Form 2220-1 (Rev. 4-77) PREVIOUS EDITION IS OBSOLETE

REPORT ON LAKE MEAD

CLARK COUNTY, NEVADA

MOHAVE COUNTY, ARIZONA

EPA REGION IX

by

National Eutrophication Survey

Water and Land Quality Branch
Monitoring Operations Division
Environmental Monitoring & Support Laboratory
Las Vegas, Nevada

and

Special Studies Branch
Corvallis Environmental Research Laboratory
Corvallis, Oregon

Working Paper No. 808

OFFICE OF RESEARCH AND DEVELOPMENT
U.S. ENVIRONMENTAL PROTECTION AGENCY

September 1977

CONTENTS

	Page
Foreword	ii
List of Nevada Study Lakes	iv
Lake and Drainage Area Map	v-vii
Sections	
I. Introduction	1
II. Conclusions	2
III. Lake and Drainage Basin Characteristics	6
IV. Lake Water Quality Summary	8
V. Nutrient Loadings	20
VI. Literature Reviewed	26
VII. Appendices	28

FOREWORD

The National Eutrophication Survey was initiated in 1972 in response to an Administration commitment to investigate the nationwide threat of accelerated eutrophication to freshwater lakes and reservoirs.

OBJECTIVES

The Survey was designed to develop, in conjunction with state environmental agencies, information on nutrient sources, concentrations, and impact on selected freshwater lakes as a basis for formulating comprehensive and coordinated national, regional, and state management practices relating to point source discharge reduction and nonpoint source pollution abatement in lake watersheds.

ANALYTIC APPROACH

The mathematical and statistical procedures selected for the Survey's eutrophication analysis are based on related concepts that:

a. A generalized representation or model relating sources, concentrations, and impacts can be constructed.

b. By applying measurements of relevant parameters associated with lake degradation, the generalized model can be transformed into an operational representation of a lake, its drainage basin, and related nutrients.

c. With such a transformation, an assessment of the potential for eutrophication control can be made.

LAKE ANALYSIS

In this report, the first stage of evaluation of lake and watershed data collected from the study lake and its drainage basin is documented. The report is formatted to provide state environmental agencies with specific information for basin planning [§303(e)], water quality criteria/standards review [§303(c)], clean lakes [§314(a,b)], and water quality monitoring [§106 and §305(b)] activities mandated by the Federal Water Pollution Control Act Amendments of 1972.

Beyond the single lake analysis, broader based correlations between nutrient concentrations (and loading) and trophic condition are being made to advance the rationale and data base for refinement of nutrient water quality criteria for the Nation's freshwater lakes. Likewise, multivariate evaluations for the relationships between land use, nutrient export, and trophic condition, by lake class or use, are being developed to assist in the formulation of planning guidelines and policies by the U.S. Environmental Protection Agency and to augment plans implementation by the States.

ACKNOWLEDGMENTS

The staff of the National Eutrophication Survey (Office of Research and Development, U.S. Environmental Protection Agency) expresses sincere appreciation to the Nevada State Environmental Protection Service for professional involvement, to the Nevada National Guard for conducting the tributary sampling phase of the Survey, and to those Nevada wastewater treatment plant operators who provided effluent samples and flow data.

The staff of the Department of Conservation and Natural Resources, Division of Environmental Protection, State Environmental Protection Service provided invaluable lake documentation and counsel during the Survey, reviewed the preliminary reports and provided critiques most useful in the preparation of this Working Paper Series.

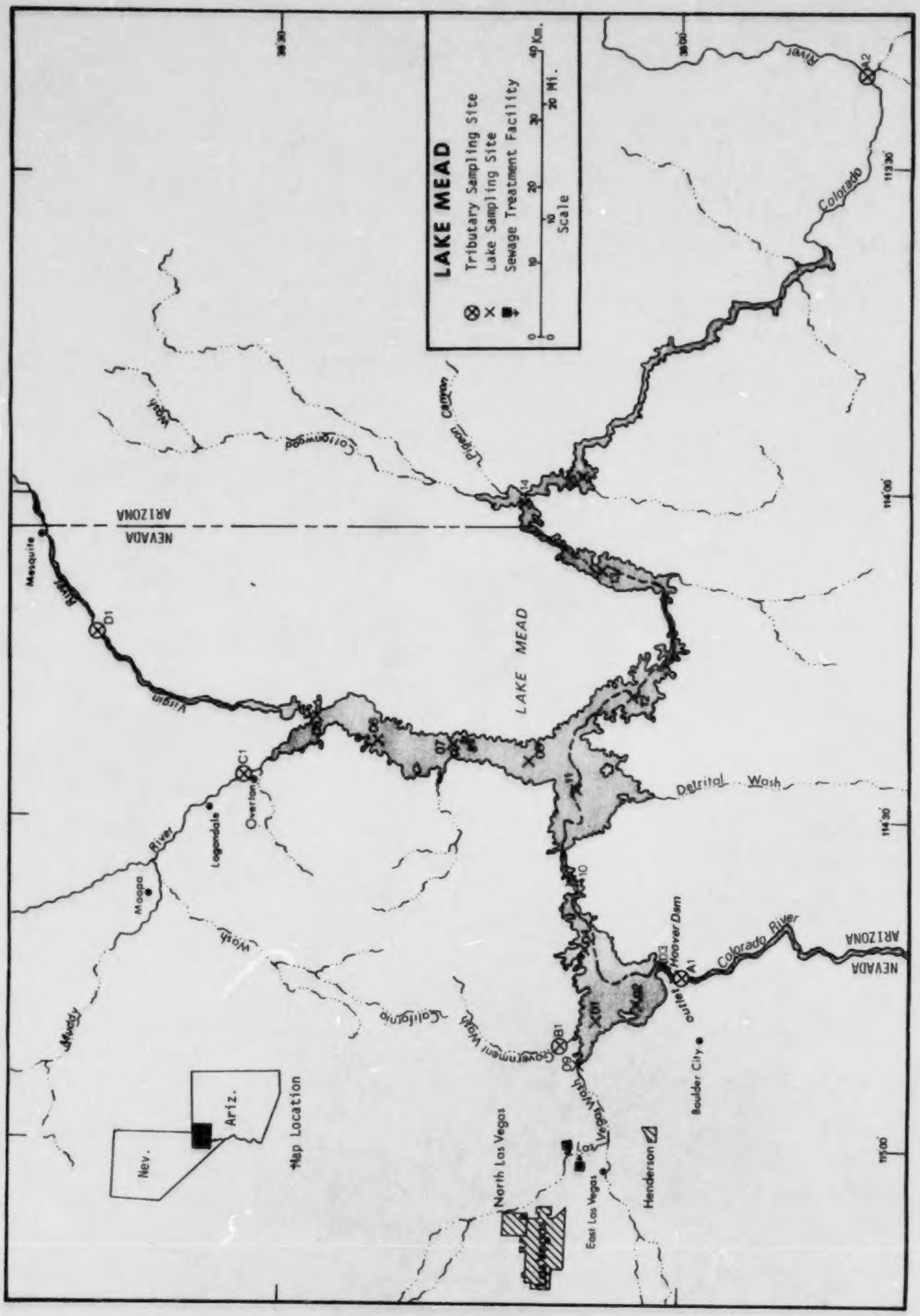
Major General Floyd L. Edsall, the Adjutant General of Nevada, and Project Officer Major Harold E. Roberts, who directed the volunteer efforts of the Nevada National Guardsmen, are also gratefully acknowledged for their assistance to the Survey.

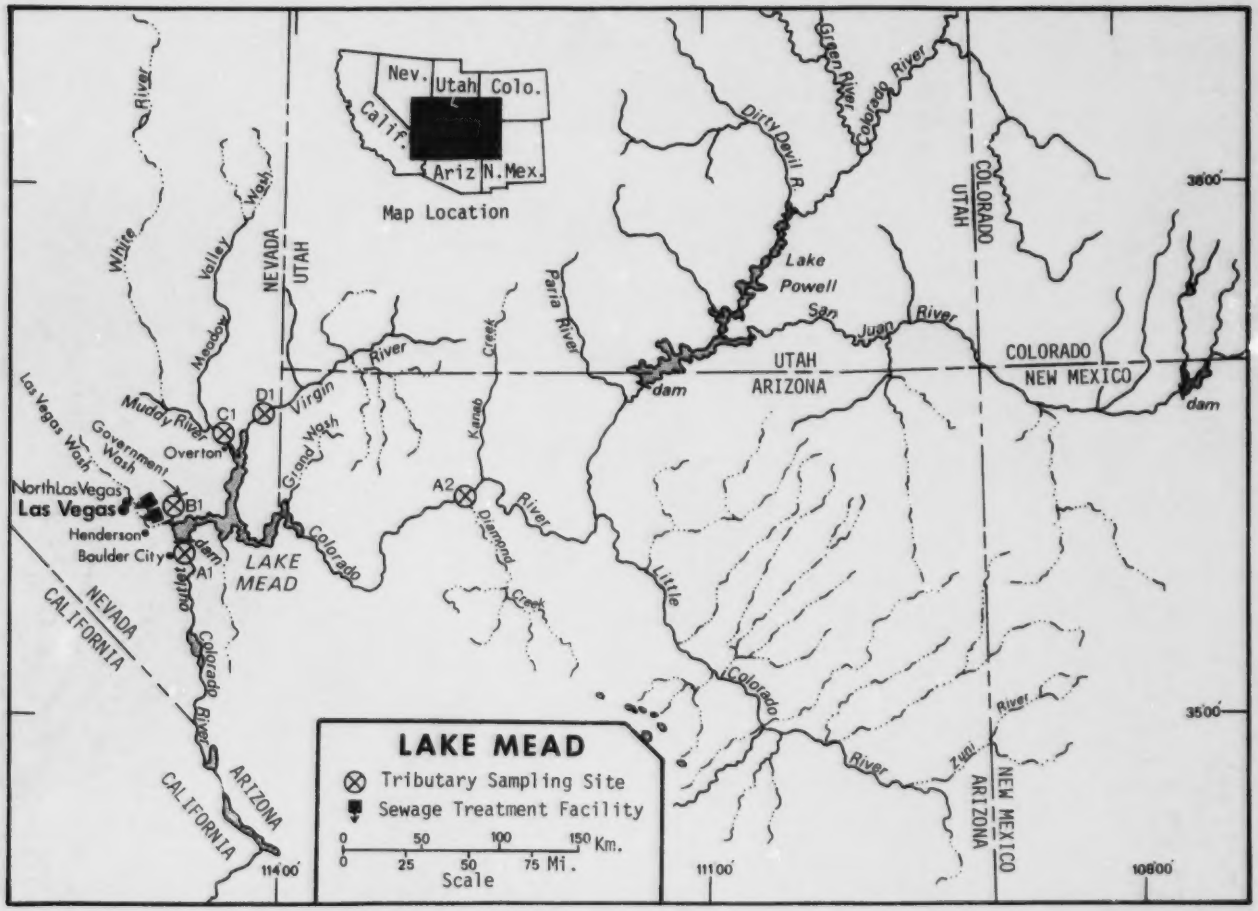
NATIONAL EUTROPHICATION SURVEY

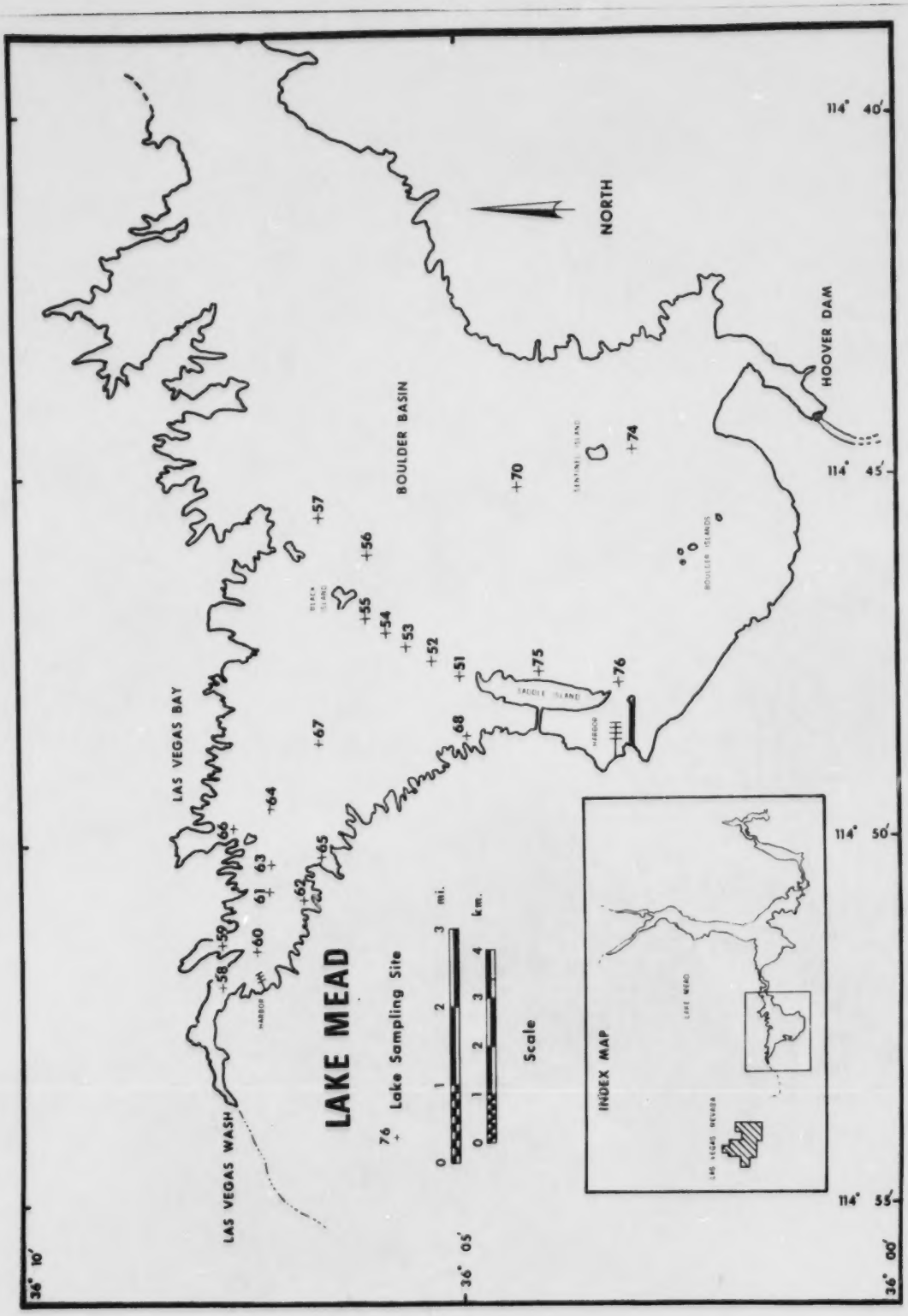
STUDY LAKES

STATE OF NEVADA

LAKE NAME	COUNTY
Lake Mead	Clark (Mohave in Arizona)
Lahontan Reservoir	Lyon, Churchill
Rye Patch Reservoir	Pershing
Lake Tahoe	Washoe, Carson City, Douglas (Placer, El Dorado in CA)
Topaz Reservoir	Douglas (Mono in CA)
Upper Pahranagat Lake	Lincoln
Washoe Lake	Washoe
Wildhorse Reservoir	Elko
Wilson Reservoir	Elko
Walker Lake	Mineral


LAKE MEAD
Tributary Sampling Site
Lake Sampling Site
Sewage Treatment Facility
0 10 20 30 40 Km.
0 10 20 Mi.
Scale
Map Location
Nev.
Ariz.
NEVADA
ARIZONA
LAKE MEAD
Mesquite
Virgin River
D1
C1
Overton
Logandale
Moapa
Muddy River
Wash
California Wash
Government Wash
Las Vegas Wash
North Las Vegas
East Las Vegas
Las Vegas
Henderson
Boulder City
B1
A1
A2
Hoover Dam
outlet
Colorado River
Colorado River
Detrital Wash
Cottonwood Wash
Pigeon Canyon
36°30'
36°00'
113°30'
114°00'
114°30'
115°00'
01
02
03
04
05
06
07
08
09
10
11
12
13
14


LAKE MEAD
Tributary Sampling Site
Sewage Treatment Facility
0 50 100 150 Km.
0 25 50 75 Mi.
Scale
Map Location
Nev.
Utah
Colo.
Calif.
Ariz
N.Mex.
NEVADA
UTAH
COLORADO
ARIZONA
NEW MEXICO
CALIFORNIA
Las Vegas
North Las Vegas
Henderson
Boulder City
Overton
Lake Powell
dam
LAKE MEAD
Colorado River
Virgin River
Muddy River
Meadow Valley Wash
White River
Las Vegas Wash
Government Wash
Grand Wash
Kanab Creek
Paria River
Diamond Creek
Little Colorado River
Zuni River
Dirty Devil R.
Green River
San Juan River
A1
A2
B1
C1
D1
38°00'
35°00'
114°00'
111°00'
108°00'


LAKE MEAD
76 Lake Sampling Site
Scale
0 1 2 3 mi.
0 1 2 3 4 km.
NORTH
HOOVER DAM
BOULDER BASIN
LAS VEGAS BAY
LAS VEGAS WASH
SADDLE ISLAND
HARBOR
BLACK ISLAND
SENTINEL ISLAND
BOULDER ISLANDS
INDEX MAP
LAKE MEAD
LAS VEGAS NEVADA
114° 40′
114° 45′
114° 50′
114° 55′
36° 10′
36° 05′
36° 00′

REPORT ON LAKE MEAD, NEVADA

STORET NO. 3201

I. INTRODUCTION

Lake Mead is a deep, warm monomictic lake created by the interstate impoundment of the Colorado River by Hoover Dam in 1935. Located in the Mohave Desert, the lake bed consists mainly of sand, silt and clay but with some expansive areas of soluble beds of gypsum and rock salt. In the first decade of Lake Mead, solutions of gypsum and rock salt from the reservoir bed caused the dissolved mineral content in the outflowing waters to be substantially greater than the average in the incoming waters. Presently however, increases in outflowing dissolved mineral content can be attributed to evaporation, which is about 5-7% of the annual inflow in the hot, arid climate (Thomas, 1954).

One of the largest man made lakes in the United States, Lake Mead is used extensively for all forms of recreational sports, and water for public use in the Las Vegas Valley is removed from an intake in Boulder Basin. Thermal stratification in the lake develops in May or June, resulting in a classical thermocline between 10-15m in July. Lake turnover generally begins in October, and the lake is completely destratified by January or February. During thermal stratification a negative heterograde oxygen profile develops,

primarily a result of biological respiration at the metalimnion, and is found in all reaches of the lake (Deacon, 1976).

II. CONCLUSIONS

A. Trophic Condition:*

Survey data indicate that Lake Mead is borderline between mesotrophic and oligotrophic throughout, with the exception of the inner Las Vegas Bay and Las Vegas Wash areas, which are meso-eutrophic and eutrophic, respectively, in water quality.

Las Vegas Wash is considered eutrophic based upon high nutrient levels and primary productivity. Chlorophyll a values in the lake sampling sites immediately downstream from the Las Vegas Wash embayment (Stations 09,58,59 and 60) ranged from 2.5 µg/l to 19.9 µg/l, with a mean of 11.8 µg/l. Total phosphorus levels ranged from 0.048 mg/l - 0.111 mg/l, with a mean of 0.067 mg/l, and Secchi disc visibility was generally lower at these stations than was observed elsewhere in the lake except at the mouth of the Colorado River.

Las Vegas Bay (as represented by Stations 01, 61, 62, 63, 64, 65, 66, and 67) had chlorophyll a levels ranging from 1.8 µg/l to 10.4 µg/l during the sampling year with a mean of 5.8 µg/l. Total phosphorus levels in this section of the lake ranged from 0.019 mg/l - 0.046 mg/l, with a mean of 0.028 mg/l.

*See Appendix E.

The remainder of the lake appears to be in excellent condition. Of the 10 Nevada lakes sampled in 1975, all but Lake Tahoe had higher median total phosphorus levels (0.016 mg/l) and higher median orthophosphorus values (0.005 mg/l) than Lake Mead. Mean chlorophyll a for the lake was only 3.1 µg/l, and average lake transparency was in excess of 584 cm (230 in).

Survey limnologists did not report any problem algal blooms or macrophyte growths during their visits to the lake. However, other studies (Sawyer, C. N., 1976; Hoffman, D. A., et. al., 1971; Goldman, C. R., 1976) have reported extensive algal blooms and associated objectional water color and odors in the Las Vegas Wash. Hoffman et. al. (1970) noted that the impoundment of Lake Powell upstream the Colorado River resulted in a temporary acceleration of water quality deterioration in Lake Mead as a result of lowered water levels, but that water quality in the lake has improved since the elevation of Lake Mead has raised.

B. Rate-Limiting Nutrient:

Algal assay results indicate that Lake Mead is primarily limited by available phosphorus levels. Inorganic nitrogen to orthophosphorus ratios obtained from the lake data further suggest phosphorus limitation (N/P > 18/1) on all sampling dates, all stations, except for in Las Vegas Wash where low ratios (N/P < 10/1) suggest nitrogen limitation.

C. Nutrient Controllability:

1. Point sources -

During the 1975 sampling year, sampled point sources contributed 8.7% of the total phosphorus load to Lake Mead. The Clark County wastewater treatment plant (2 outfalls) contributed a total of 5.7% and the Las Vegas treatment plant contributed 3.0%. In addition, there are small treatment plants in the communities of Henderson and Boulder City which discharge to land irrigation (U.S. EPA, 1971b). How much, if any, of this land release eventually reaches Lake Mead through surface runoff is not known at this time. The city of Mesquite is also a known municipal discharger to the Virgin River. However, the plant did not participate in the 1975 survey and it is not known what annual nutrient contributions impact Lake Mead from this source.

The calculated annual phosphorus loading of 6.23 g $P/m^2/yr$ is almost an order of magnitude greater than that proposed by Vollenweider (1975) as "eutrophic" for a lake with such volume and hydraulic retention time (0.78 g $P/m^2/yr$). Lake Mead appears to be acting as an effective nutrient trap, with over 90% of the phosphorus loading being retained by the lake. However, most of the nutrients appear to be deposited very near the inlets of inflowing tributaries. For example, ambient total phosphorus

and total nitrogen (NO_2 + NO_3 + Kjeldahl) concentrations (Appendix C) are substantially less at Station 15 than those found in the Colorado River at Station A-2 (Appendix D), and those at Station 05 are similarly less than concentrations found at Station D-1 on the Virgin River. This effective loading, after consideration of the Lake Mead sedimentation rate, is still probably in excess of Vollenweider's "eutrophic" level and a progression towards eutrophic conditions in the lake can be expected. However, the progression should be relatively slow under present conditions except in Las Vegas Wash and Las Vegas Bay, where nutrient levels are many times higher than elsewhere in the lake and are increasing annually (Deacon, 1976). Substantial reduction of phosphorus loading from the known point sources to Las Vegas Wash will be necessary to reduce the occurrence of problem conditions, such as excessive algal populations, which are regularly reported in this area.

2. Nonpoint sources -

Nonpoint sources, including precipitation, contributed approximately 91% of the total phosphorus loading during the sampling year. The Colorado River contributed 80.2% of the total load, and ungaged tributaries contributed an estimated 5.3%.

III. LAKE AND DRAINAGE BASIN CHARACTERISTICS

Lake and drainage basin characteristics are itemized below. Lake morphometry data were provided by James B. Williams, Jr. (personal communication). Tributary flow data were provided by the Nevada District Office of the United States Geological Survey (USGS). Outlet drainage area includes the lake surface area. Mean hydraulic retention time was obtained by dividing the lake volume by mean flow of the outlet. Precipitation values are estimated by methods as outlined in National Eutrophication Survey (NES) Working Paper No. 175. A table of metric/English conversions is included as Appendix A.

A. Lake Morphometry:

1. Surface area: 592.88 km^2.
2. Mean depth: 59.1 meters.
3. Maximum depth: 179.5 meters.
4. Volume: 35,064.420 x 10^6 m^3.
5. Mean hydraulic retention time: 1,289 days (3.5 yrs).

B. Tributary and Outlet:
(See Appendix B for flow data)

1. Tributaries -

Name	Drainage area (km^2)	Mean Flow (m^3/sec)
A-2 Colorado River	378,139.9	370.21
C-1 Muddy River	21,238.0	0.40
D-1 Virgin River	15,255.1	4.82
Minor tributaries and immediate drainage -	19,376.0	1.91
Total	434,009.0	377.34
2. Outlet - A-1 Colorado River	434,601.8	314.74

C. Precipitation:

1. Year of sampling: 9.4 cm.
2. Mean annual: 13.1 cm.

IV. LAKE WATER QUALITY SUMMARY

Lake Mead was sampled as part of the National Eutrophication Survey four times during the open-water season of 1975 by means of a pontoon-equipped Huey helicopter. Each time, samples for physical and chemical parameters were collected from 15 stations on the lake and from one or more depths at each station (see maps, pages v-vi). In addition, 22 special interest stations throughout Las Vegas and Boulder Bay (see map, page vii) were collected during the month of December (12/08-11/75). During each visit, depth-integrated samples were collected from each station for chlorophyll a analysis and phytoplankton identification and enumeration. During February, November, and December visits, 18.9-liter depth-integrated samples were composited for algal assays from the original 15 NES sampling stations. Maximum depths (expressed in meters) sampled at these 15 stations and at the 22 special study sites in Las Vegas and Boulder Bays were as follows:

Station Number (NES)	Depth	Station Number	Depth
01 (=31)	26.2	51	49.7
02 (=32)	65.5*	52	64.0*
03 (=33)	70.1*	53	64.0*
04 (=34)	61.0*	54	64.0*
05 (=35)	16.5	55	51.2
06 (=36)	45.7	56	59.7
07 (=37)	70.0*	57	57.6
08 (=38)	67.0*	58	9.1
09 (=39)	12.5	59	2.1
10 (=40)	70.1*	60	19.8

*Indicates actual depth of station exceeding cable length. Consequently, data from deeper waters were not collected.

IV. LAKE WATER QUALITY SUMMARY (continued)

Station Number (NES)	Depth	Station Number	Depth
11 (=41)	70.1*	61	27.4
12 (=42)	67.0*	62	10.7
13 (=43)	68.9*	63	42.7
14 (=44)	9.4	64	44.2
15 (=45)	6.4	65	17.7
		66	7.6
		67	64.0*
		68	15.2
		70	65.5*
		74	67.0
		75	61.0
		76	37.8

For a more detailed explanation of NES methods, see NES Working Paper No. 175.

The results obtained are presented in full in Appendix C and are summarized in III-A for waters at the surface and at the maximum depth for each site. Results of the phytoplankton counts and chlorophyll a determinations are included in III-B. Results of the limiting nutrient study are presented in III-C.

*Indicates actual depth of station exceeding cable length. Consequently, data from deeper waters were not collected.

LAKE MEAD
STORET CODE 3201

PHYSICAL AND CHEMICAL CHARACTERISTICS

PARAMETER	(2/24/75) S*** = 15 N*	RANGE	MEDIAN	MAX DEPTH RANGE (METERS)	(6/11/75) S*** = 14 N*	RANGE	MEDIAN	MAX DEPTH RANGE (METERS)	(11/20/75) S*** = 34 N*	RANGE	MEDIAN	MAX DEPTH RANGE (METERS)
TEMPERATURE (DEG CENT)												
0.-1.5 M DEPTH	28	7.5- 11.9	9.2	0.0- 1.5	28	15.4- 24.7	21.4	0.0- 1.5	71	8.4- 16.7	14.5	0.0- 1.5
MAX DEPTH**	15	7.1- 10.9	8.5	0.0- 61.0	14	9.4- 16.9	10.3	3.7- 61.0	34	8.5- 15.7	13.6	2.1- 70.1
DISSOLVED OXYGEN (MG/L)												
0.-1.5 M DEPTH	27	7.2- 13.9	10.6	0.0- 1.5	28	7.4- 10.0	9.0	0.0- 1.5	70	5.0- 10.6	8.6	0.0- 1.5
MAX DEPTH**	15	9.0- 14.2	10.4	0.0- 61.0	14	7.0- 9.8	8.4	3.7- 61.0	34	3.6- 11.6	8.2	2.1- 70.1
CONDUCTIVITY (UMHOS)												
0.-1.5 M DEPTH	28	624.-1154.	789.	0.0- 1.5	28	920.-1268.	1198.	0.0- 1.5	71	561.- 900.	800.	0.0- 1.5
MAX DEPTH**	15	622.-1198.	766.	0.0- 61.0	14	849.-1070.	920.	3.7- 61.0	34	646.-1017.	789.	2.1- 70.1
PH (STANDARD UNITS)												
0.-1.5 M DEPTH	28	8.1- 8.4	8.3	0.0- 1.5	28	8.3- 8.7	8.5	0.0- 1.5	71	7.2- 8.6	8.0	0.0- 1.5
MAX DEPTH**	15	8.1- 8.4	8.3	0.0- 61.0	13	8.1- 8.6	8.3	3.7- 61.0	34	7.2- 8.5	7.8	2.1- 70.1
TOTAL ALKALINITY (MG/L)												
0.-1.5 M DEPTH	28	133.- 163.	144.	0.0- 1.5	28	128.- 159.	144.	0.0- 1.5	71	117.- 154.	131.	0.0- 1.5
MAX DEPTH**	15	133.- 166.	141.	0.0- 61.0	14	128.- 156.	144.	3.7- 61.0	34	121.- 156.	135.	2.1- 70.1
TOTAL P (MG/L)												
0.-1.5 M DEPTH	28	0.011-0.111	0.020	0.0- 1.5	28	0.005-0.029	0.008	0.0- 1.5	71	0.004-0.054	0.018	0.0- 1.5
MAX DEPTH**	15	0.011-0.111	0.022	0.0- 61.0	14	0.005-0.075	0.009	3.7- 61.0	34	0.004-0.179	0.019	2.1- 70.1
DISSOLVED ORTHO P (MG/L)												
0.-1.5 M DEPTH	28	0.003-0.070	0.010	0.0- 1.5	28	0.002-0.017	0.003	0.0- 1.5	71	0.002-0.019	0.005	0.0- 1.5
MAX DEPTH**	15	0.003-0.070	0.013	0.0- 61.0	14	0.002-0.075	0.003	3.7- 61.0	34	0.002-0.157	0.006	2.1- 70.1
NO2+NO3 (MG/L)												
0.-1.5 M DEPTH	28	0.340-0.490	0.375	0.0- 1.5	28	0.080-0.500	0.305	0.0- 1.5	71	0.020-0.480	0.230	0.0- 1.5
MAX DEPTH**	15	0.340-0.500	0.370	0.0- 61.0	14	0.120-0.520	0.400	3.7- 61.0	34	0.130-0.560	0.400	2.1- 70.1
AMMONIA (MG/L)												
0.-1.5 M DEPTH	28	0.020-0.060	0.020	0.0- 1.5	28	0.020-0.150	0.040	0.0- 1.5	71	0.020-0.040	0.020	0.0- 1.5
MAX DEPTH**	15	0.020-0.030	0.020	0.0- 61.0	14	0.020-0.280	0.030	3.7- 61.0	34	0.020-0.060	0.020	2.1- 70.1
KJELDAHL N (MG/L)												
0.-1.5 M DEPTH	28	0.200-1.800	0.300	0.0- 1.5	28	0.200-3.300	0.450	0.0- 1.5	71	0.200-0.400	0.200	0.0- 1.5
MAX DEPTH**	15	0.200-0.400	0.300	0.0- 61.0	14	0.200-0.400	0.300	3.7- 61.0	34	0.200-0.300	0.200	2.1- 70.1
SECCHI DISC (METERS)												
	14	0.9- 8.5	5.2		13	0.5- 12.2	8.5		38	0.5- 15.2	4.3	

* N = NO. OF SAMPLES
** MAXIMUM DEPTH SAMPLED AT EACH SITE
*** S = NO. OF SITES SAMPLED ON THIS DATE

LAKE MEAD
STORET CODE 3201

PHYSICAL AND CHEMICAL CHARACTERISTICS

(12/11/75)

S*** = 4

PARAMETER	N*	RANGE	MEDIAN	MAX DEPTH RANGE (METERS)
TEMPERATURE (DEG CENT)				
0.-1.5 M DEPTH	7	13.9- 14.3	14.1	0.0- 1.5
MAX DEPTH**	4	11.5- 13.7	11.6	37.8- 67.1
DISSOLVED OXYGEN (MG/L)				
0.-1.5 M DEPTH	8	8.2- 9.2	8.6	0.0- 1.5
MAX DEPTH**	4	6.2- 7.4	6.5	37.8- 67.1
CONDUCTIVITY (UMHOS)				
0.-1.5 M DEPTH	8	791.- 820.	799.	0.0- 1.5
MAX DEPTH**	4	732.- 795.	790.	37.8- 67.1
PH (STANDARD UNITS)				
0.-1.5 M DEPTH	8	7.9- 8.1	8.0	0.0- 1.5
MAX DEPTH**	4	7.7- 8.0	7.8	37.8- 67.1
TOTAL ALKALINITY (MG/L)				
0.-1.5 M DEPTH	8	123.- 131.	126.	0.0- 1.5
MAX DEPTH**	4	126.- 148.	144.	37.8- 67.1
TOTAL P (MG/L)				
0.-1.5 M DEPTH	8	0.015-0.021	0.018	0.0- 1.5
MAX DEPTH**	4	0.012-0.021	0.015	37.8- 67.1
DISSOLVED ORTHO P (MG/L)				
0.-1.5 M DEPTH	8	0.004-0.008	0.006	0.0- 1.5
MAX DEPTH**	4	0.009-0.012	0.009	37.8- 67.1
NO2+NO3 (MG/L)				
0.-1.5 M DEPTH	8	0.230-0.260	0.240	0.0- 1.5
MAX DEPTH**	4	0.250-0.440	0.430	37.8- 67.1
AMMONIA (MG/L)				
0.-1.5 M DEPTH	8	0.030-0.040	0.035	0.0- 1.5
MAX DEPTH**	4	0.030-0.060	0.045	37.8- 67.1
KJELDAHL N (MG/L)				
0.-1.5 M DEPTH	8	0.200-0.200	0.200	0.0- 1.5
MAX DEPTH**	4	0.200-0.400	0.200	37.8- 67.1
SECCHI DISC (METERS)				
	4	4.3- 6.7	4.9	

* N = NO. OF SAMPLES
** MAXIMUM DEPTH SAMPLED AT EACH SITE
*** S = NO. OF SITES SAMPLED ON THIS DATE

B. Biological Characteristics:

1. Phytoplankton -

Sampling Date	Dominant Genera	Algal Units Per ml
02/24/75	1. Chroomonas?	511
	2. Cryptomonas	46
	3. Tetraedron	46
	Other genera	---
	Total	603
06/11/75	1. Chroomonas?	110
	2. Rhoicosphenia	44
	Other genera	---
	Total	154
11/20/75	1. Raphidiopsis	1,056
	2. Chroomonas?	624
	3. Anabaenopsis	240
	4. Centric diatom	240
	5. Cryptomonas	96
	Other genera	96
	Total	2,352
12/01/75	1. Chroomonas?	170
	2. Raphidiopsis?	43
	Other genera	---
	Total	213

2. Chlorophyll a -

Sampling Date	Station Number	Chlorophyll a (µg/l)
02/24/75	01	1.9
	02	1.6
	03	1.4
	04	2.4
	05	1.9
	06	2.1
	07	0.5
	08	0.6
	09	9.0
	10	1.0
	11	1.0
	12	0.5
	13	0.8
	14	1.6
	15	0.7
06/11/75	01	2.6
	02	2.1
	03	1.9
	04	1.6
	05	1.0
	06	0.7
	07	0.6
	08	0.6
	09	---
	10	1.2
	11	0.5
	12	0.8
	13	0.8
	14	0.7
	15	1.1

2. Chlorophyll a - (continued)

Sampling Date	Station Number	Chlorophyll a (µg/l)
11/20/75	01	8.0
	02	4.5
	03	3.7
	04	4.3
	05	1.9
	06	---
	07	---
	08	---
	09	2.5
	10	1.4
	11	1.2
	12	---
	13	2.2
	14	2.1
	15	0.7
12/01/75	01	---
	02	4.1
	03	---
	04	---
	05	---
	06	1.0
	07	0.9
	08	0.9
	09	---
	10	1.2
	11	1.0
	12	1.0
	13	---
	14	---
	15	---

2. Chlorophyll a - Special Study Stations -

Sampling Date	Station Number	Chlorophyll a (µg/l)
12/04,08-11/75	51	3.8
	52	2.8
	53	4.2
	54	3.7
	55	3.2, 4.2
	56	3.8
	57	5.4
	58	---
	59	19.9
	60	15.6
	61	5.9
	62	10.4
	63	7.0
	64	1.8
	65	7.6
	66	10.0
	67	2.6
	68	4.0
	70	3.1
	74	3.2
	75	3.2
	76	3.4

C. Limiting Nutrient Study:

1. Autoclaved, filtered, and nutrient spiked -

Spike (mg/l)	Ortho P Conc. (mg/l)	Inorganic N Conc. (mg/l)	Maximum Yield (mg/l-dry wt.)
a. 02/24,25/75	Stations 01-04		
Control	0.005	0.384	0.3
0.05 P	0.055	0.384	0.4
0.05 P + 1.0 N	0.055	1.384	0.4
1.00 N	0.005	1.384	0.4
	Stations 05-08		
Control	<0.005	0.354	0.1
0.05 P	<0.055	0.354	0.4
0.05 P + 1.0 N	<0.055	1.354	0.6
1.00 N	<0.005	1.354	0.1
	Stations 10-13		
Control	<0.005	0.369	0.1
0.05 P	<0.055	0.369	0.5
0.05 P + 1.0 N	<0.055	1.369	0.6
1.00 N	<0.005	1.369	0.1
	Station 15		
Control	<0.005	0.446	0.2
0.05 P	<0.055	0.446	0.2
0.05 P + 1.0 N	<0.055	1.446	0.3
1.00 N	<0.005	1.446	0.1
b. 11/20,21/75	Stations 01-03, 09		
Control	0.005	0.245	0.7
0.05 P	0.055	0.245	9.6
0.05 P + 1.0 N	0.055	1.245	21.0
1.00 N	0.005	1.245	0.6
	Stations 04, 10, 11		
Control	0.005	0.330	0.1
0.05 P	0.055	0.330	9.2
0.05 P + 1.0 N	0.055	1.330	16.6
1.00 N	0.005	1.330	0.1

C. Limiting Nutrient Study: (continued)

1. Autoclaved, filtered, and nutrient spiked -

Spike (mg/l)	Ortho P Conc. (mg/l)	Inorganic N Conc. (mg/l)	Maximum Yield (mg/l-dry wt.)
	Stations 12,13		
Control	0.005	0.425	0.1
0.05 P	0.055	0.425	10.9
0.05 P + 1.0 N	0.055	1.425	13.7
1.00 N	0.005	1.425	0.1
c. 12/01-02/75	Stations 06-08		
Control	0.005	0.350	0.2
0.05 P	0.055	0.350	8.4
0.05 P + 1.0 N	0.055	1.350	9.2
1.00 N	0.005	1.350	0.2
	Stations 08, 11, 12		
Control	0.005	0.405	0.3
0.05 P	0.055	0.405	9.9
0.05 P + 1.0 N	0.055	1.405	12.2
1.00 N	0.005	1.405	0.2

2. Discussion -

The control yields of the assay alga, Selenastrum capricornutum*, indicate that the potential for primary productivity was generally low at the time the NES samples were taken. In most of the assays, increases in yield over that of the control with the addition of phosphorus spikes indicate that Lake Mead was limited by available phosphorus. The addition of nitrogen alone resulted in yields which were not significantly different than those of the controls.

The reservoir data substantiate phosphorus limitation; i.e., the mean inorganic nitrogen to dissolved orthophosphorus ratios were 18/1 or greater at all stations on all sampling rounds except for Stations 09, 58 and 60 where N/P ratios were less than 10/1, indicating nitrogen limitation in that area. These three stations are located at the mouth of Las Vegas Wash, where phosphorus levels are substantially higher than elsewhere in the lake as a result of upstream discharges of municipal wastewater. These findings support work by the U.S. Department of the Interior (1970) which presented bioassay data indicating inorganic phosphorus was limiting algal growth throughout most of Lake Mead and the Colorado River below the dam. More recent authors have also suggested that nitrogen is the primary limiting nutrient throughout inner Las Vegas Bay as a result of the high phosphorus loading to that area (Deacon, J. E., 1976; Goldman, C. R., 1976)

*For further information regarding the algal assay test procedure and selection of test organisms, see U.S. EPA (1971a).

from Las Vegas Wash. Unfortunately there was no assay sample collected separately for either Las Vegas Wash or Las Vegas Bay to substantiate these results.

Several of the algal assays exhibited little or no response to addition of nutrients (particularly during the February sampling). Available data were insufficient to determine the cause of these anomalous results. However, possible explanations include the presence of a toxin or primary limitation by some minor nutrient other than nitrogen or phosphorus. Hoffman, et. al. (1971) report that micronutrients (such as molybdenum), carbon sources, vitamins and enzymes may be the key factors limiting primary productivity rather than phosphorus and nitrogen.

V. NUTRIENT LOADINGS
(See Appendix D for data)

For the determination of nutrient loadings, the Nevada National Guard collected monthly near-surface grab samples from each of the tributary sites indicated on the maps (pages v-vi) except for the high runoff months of March and April when two samples were generally collected. Sampling was begun in November 1974, and was completed in October 1975.

Through an interagency agreement, stream flow estimates for the year of sampling and a "normalized" or average year were provided by the Nevada District Office of the USGS for the tributary sites nearest the lake.

In this report, nutrient loads for sampled tributaries were determined by using a modification of a USGS computer program for calculating stream loadings. Nutrient loads indicated for tributaries are those measured minus known point source loads, if any.

Nutrient loadings for unsampled "minor tributaries and immediate drainage" ("ZZ" of USGS) were estimated by using the mean annual nutrient loads, in $kg/km^2/year$, in the Colorado River and Virgin River at Stations A-2 and D-1 and multiplying the means by the ZZ area in km^2.

The operators of the Las Vegas and the Clark County (East and West) wastewater treatment plants provided monthly effluent samples and corresponding flow data. However, flow data provided were

from influent gauging stations, and a substantial portion of the effluent from both plants is diverted for use in irrigation (golf courses and farms), and for cooling water in the Las Vegas city power plants. The Clark County Sanitation District reports that in 1975, 14.23% of the Clark County plants and 13.2% of the City of Las Vegas plant effluents were diverted; thus, annual loading data for 1975 to Lake Mead provided to NES have been reduced these amounts in the lake nutrient budget on pages 22-23. It should be noted that these diversions may be increasing substantially. For the months of July, August and September, 1977, the City of Las Vegas plant reports monthly effluent diversions ranging from 41-54% of the total inflow to the plant. Further investigation is needed to determine the true annual nutrient loading from these facilities to Las Vegas Wash.

A. Waste Sources:

1. Known municipal -

Name	Pop.* Served	Treatment*	Mean Flow** ($m^3/d \times 10^3$)	Receiving Water
Las Vegas Municipal	218,000	Trickling Filter	48.926	Las Vegas Wash
Clark County Municipal (E. Outfall)	56,000	Trickling Filter	53.331	Las Vegas Wash
Clark County Municipal (W. Outfall)	56,000	Trickling Filter	41.350	Las Vegas Wash

2. Known industrial -

There were no industrial point sources known to impact Lake Mead which were sampled by NES in the 1975 sampling year. However, until recently industrial wastes from seven plants were discharged into a complex of waste disposal ponds operated by Basic Management, Inc. (BMI). These disposal ponds are unlined, and in 1971 seepage into Las Vegas Wash was estimated to average more than 5 mgd and to be a major source of nitrates and dissolved solids to the lake (U.S. EPA, 1971b). As of January, 1977, all the BMI plants have contained their discharges in impermeable ponds on their property. However, contaminated groundwater seepage into the Wash resulting from percolation of past industrial discharges into the upper groundwater aquifer will probably continue for several years (U.S. EPA, 1971c; P. King, personal communication).

*Provided by treatment plant operations
** Flows indicated are at influent, rather than effluent stations.

B. Annual Total Phosphorus Loading - Average Year:

1. Inputs -

Source	kg P/yr	% of total
a. Tributaries (nonpoint load) -		
A-2 Colorado River	2,962,270	80.2
C-1 Muddy River	4,525	0.1
D-1 Virgin River	199,840	5.4
b. Minor tributaries and immediate drainage (nonpoint load) -	193,760	5.3
c. Known municipal STP's* -		
Las Vegas	110,550	3.0
Clark County (East Outfall)	119,510	3.2
Clark County (West Outfall)	91,995	2.5
d. Septic tanks** -	10	<0.1
e. Known industrial - See page 20		
f. Direct precipitation*** -	10,375	0.3
Total	3,692,835	100.0%

2. Outputs - A-1 Colorado River 247,325

3. Net annual P accumulation - 3,445,510

*Adjusted for known effluent diversions.
**Estimate based on 35 lakeshore residences.
***Estimated (See NES Working Paper No. 175).

C. Annual Total Nitrogen Loading - Average Year:

1. Inputs -

Source	kg N/yr	% of total
a. Tributaries (nonpoint load) -		
A-2 Colorado River	24,139,490	89.9
C-1 Muddy River	23,085	0.1
D-1 Virgin River	302,070	1.1
b. Minor tributaries and immediate drainage (nonpoint load) -	813,790	3.0
c. Known municipal STP's* -		
Las Vegas	322,675	1.2
Clark County (East Outfall)	333,245	1 2
Clark County (West Outfall)	305,600	1.1
d. Septic tanks** -	375	<0.1
e. Known industrial - See page 20		
f. Direct precipitation*** -	640,075	2.4
Total	26,880,405	100.0%

2. Outputs - A-1 Colorado River 11,996,385

3. Net annual N accumulation - 14,884,020

*Adjusted for known effluent diversions.
*Estimate based on 35 lakeshore residences.
**Estimated (See NES Working Paper No. 175).

D. Mean Annual Nonpoint Nutrient Export by Subdrainage Area:

Tributary	kg P/km^2/yr	kg N/km^2/yr
Colorado River	8	64
Muddy River	<1	1
Virgin River	13	20

E. Yearly Loadings:

In the following table, the existing phosphorus annual loading is compared to the relationship proposed by Vollenweider (1975). Essentially, his "eutrophic" loading is that at which the receiving waters would become eutrophic or remain eutrophic; his "oligotrophic" loading is that which would result in the receiving water remaining oligotrophic or becoming oligotrophic is morphometry permitted. A "mesotrophic" loading would be considered one between "eutrophic" and "oligotrophic".

Note that Vollenweider's model may not apply to lakes with short hydraulic retention times or in which light penetration is severely restricted by high concentrations of suspended solids in the surface waters.

	Total Yearly Phosphorus Loading (g/m^2/yr)
Estimated loading for Lake Mead	6.23
Vollenweider's "eutrophic" loading	0.78
Vollenweider's "oligotrophic" loading	0.39

VI. LITERATURE

Deacon, James E. 1976. Lake Mead Monitoring Program. Final Report Submitted to Clark County Sanitation District No. 1, Wastewater Treatment Physical Development Section. Department of Biological Sciences, University of Nevada, Las Vegas.

Goldman, C. R. 1976. A Review of the Limnology of and Water Quality Standards for Lake Mead. Ecological Research Associates, Davis, California.

Hoffman, D. A., P. R. Tramutt, and F. C. Heller. 1970. Water Quality Study of Lake Mead. Bureau of Reclamation. Chemical Engineering Branch, Division of Research, Report No. CHE-70. Denver, Colorado.

Hoffman, D. A., P. R. Tramutt, and F. C. Heller. 1971. The Effect of Las Vegas Wash Effluent Upon the Water Quality in Lake Mead. Engineering and Research Center, Bureau of Reclamation Report #REC-ERC-71-11. Denver, Colorado.

King, Peter. 1977. Personal Communication (Las Vegas Valley Sewage Treatment Plants). U.S. Environmental Protection Agency, Region IX, Enforcement Division, Water Branch, San Francisco, California.

Sawyer, C. N. 1976. Report on Wastewater Disposal to Board of County Commissioners, Clark County, Nevada. Consultant, Sun City, Arizona.

Thomas, H. E. 1954. First Fourteen Years of Lake Mead. United States Geological Survey Circular 346. Washington, D. C.

U.S. Department of the Interior. 1970. Analysis of Algal Growth Potential and Possible Discharge Requirements for the Lower Colorado River. (Technical Assistance Report to the State of Nevada, Department of Health, Welfare and Rehabilitation). Federal Water Quality Administration, Colorado River, Bonneville Basin Office, Denver Colorado.

U.S. Environmental Protection Agency. 1971a. Algal Assay Procedure Bottle Test, National Eutrophication Research Program, Corvallis, Oregon.

U.S. Environmental Protection Agency. 1971b. Inventory of Wastewater Treatment Facilities. EPA Publication No. OWP-1. Office of Media Programs, Office of Water Programs, Washington, D. C.

U.S. Environmental Protection Agency. 1971c. Report on Pollution Affecting Las Vegas Wash, Lake Mead, and the Lower Colorado River. Office of Enforcement, Region IX, San Francisco, California, and Division of Field Investigations, Denver, Colorado.

U.S. Environmental Protection Agency. 1975. National Eutrophication Survey Methods 1973-1976. Working Paper No. 175. National Environmental Research Center, Las Vegas, Nevada, and Pacific Northwest Environmental Research Laboratory, Corvallis, Oregon.

Vollenweider, R. A. 1975. Input-Output Models With Special Reference to the Phosphorus Loading Concept in Limnology. Schweiz. Z. Hydrol. 37:53-84.

Williams, James B. 1974. Personal Communication (morphometry of Lake Mead). Department of Human Resources, Carson City, Nevada.

VII. APPENDICES

APPENDIX A

CONVERSION FACTORS

CONVERSION FACTORS

Hectares x 2.471 = acres

Kilometers x 0.6214 = miles

Meters x 3.281 = feet

Cubic meters x 8.107 x 10^{-4} = acre/feet

Square kilometers x 0.3861 = square miles

Cubic meters/sec x 35.315 = cubic feet/sec

Centimeters x 0.3937 = inches

Kilograms x 2.205 = pounds

Kilograms/square kilometer x 5.711 = lbs/square mile

APPENDIX B

TRIBUTARY FLOW DATA

TRIBUTARY FLOW INFORMATION FOR NEVADA 1/21/77

LAKE CODE 3201 LAKE MEAD

TOTAL DRAINAGE AREA OF LAKE(SQ KM) 434601.8

TRIBUTARY	SUB-DRAINAGE AREA(SQ KM)	NORMALIZED FLOWS(CMS) JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
3201A1	434601.8	226.53	280.34	373.78	410.59	410.59	368.12	370.95	356.79	297.33	246.36	218.04	215.21	314.74
3201A2	378139.9	342.63	271.84	317.15	484.22	492.71	478.55	399.27	404.93	359.62	280.34	288.83	317.15	370.21
3201C1	21238.0	0.31	0.31	0.37	0.45	0.31	0.25	0.23	0.31	0.40	0.59	0.74	0.51	0.40
3201D1	15255.1	6.82	6.82	5.95	7.93	5.21	1.64	0.23	3.68	3.23	3.45	5.13	7.84	4.82
3201Z2	19968.9	2.83	2.55	2.27	1.98	1.42	1.42	1.13	1.70	1.42	1.70	2.27	2.27	1.91

SUMMARY

TOTAL DRAINAGE AREA OF LAKE = 434601.8 TOTAL FLOW IN = 4522.82
SUM OF SUB-DRAINAGE AREAS = 434601.7 TOTAL FLOW OUT = 3774.63

MEAN MONTHLY FLOWS AND DAILY FLOWS(CMS)

TRIBUTARY	MONTH	YEAR	MEAN FLOW	DAY	FLOW	DAY	FLOW	DAY	FLOW
3201A1	11	74	239.787	16	147.248	16	103.640		
	12	74	195.811	13	152.345	13	147.248		
	12	74	195.811	20	151.212	20	108.170		
	1	75	237.324	18	157.442	18	158.574		
	1	75	237.324	28	273.824	28	275.240		
	2	75	314.600						
	3	75	344.899	17	353.960	17	393.604		
	3	75	344.899	28	410.594	28	552.178		
	4	75	414.559	23	438.911	23	665.446		
	4	75	0.0	29	487.050	29	648.456		
	5	75	445.990	17	359.624	17	555.010		
	6	75	383.976	17	455.901	17	594.654		
	6	75	383.976	30	399.267	30	509.703		
	7	75	382.277	18	424.753	18	424.753		
	7	75	382.277	31	424.753	31	368.119		
	8	75	370.667	20	441.743	20	339.802		
	9	75	317.715						
	10	75	252.813	28	227.951	28	192.555		
3201A2	11	74	368.119						
	12	74	283.168	13	396.436				
	1	75	379.446						
	2	75	311.485	18	263.347				
	3	75	277.505	17	413.426				
	4	75	254.852	17	331.307				
	5	75	438.911						
	6	75	481.386						
	7	75	580.495						
	8	75	495.545						
	9	75	481.386						
	10	75	0.0						

TRIBUTARY FLOW INFORMATION FOR NEVADA 1/21/77

LAKE CODE 3201 LAKE MEAD

MEAN MONTHLY FLOWS AND DAILY FLOWS(CMS)

TRIBUTARY	MONTH	YEAR	MEAN FLOW	DAY	FLOW	DAY	FLOW	DAY	FLOW
3201C1	11	74	0.651	16	0.680				
	12	74	0.481	20	0.425				
	1	75	0.255	28	0.198				
	2	75	0.227						
	3	75	0.311	20	0.340	28	0.368		
	4	75	0.396	23	0.425	29	0.368		
	5	75	0.283	17	0.283				
	6	75	0.227	30	0.198				
	7	75	0.198	31	0.198				
	8	75	0.227	20	0.198				
	9	75	0.425						
	10	75	0.566	28	0.566				
3201D1	11	74	4.701	16	4.106				
	12	74	4.389	20	4.106				
	1	75	3.511	29	2.832				
	2	75	4.531						
	3	75	5.777	20	6.654	28	5.663		
	4	75	2.633	23	0.396	29	0.736		
	5	75	3.908	17	6.796				
	6	75	0.283	30	0.011				
	7	75	0.008	31	0.011				
	8	75	0.014	20	0.014				
	9	75	0.170						
	10	75	0.311	28	0.0				
3201ZZ	11	74	2.832						
	12	74	2.832						
	1	75	2.549						
	2	75	2.832						
	3	75	2.549						
	4	75	2.832						
	5	75	2.265						
	6	75	1.982						
	7	75	3.398						
	8	75	2.265						
	9	75	2.549						
	10	75	2.832						

APPENDIX C

PHYSICAL AND CHEMICAL DATA

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320131
36 06 51.0 114 47 27.0 3
LAKE MEAD
32003 NEVADA

/TYPA/AMBNT/LAKE

110191

11EPALES
0084 FEET DEPTH CLASS 00

04001002

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
75/02/24	10 30	0000	7.9	9.6	190	1154	8.20	135	0.060	1.700	0.350	0.026
	10 30	0005	8.4	7.2		1041	8.20	133	0.020	0.400	0.340	0.019
	10 30	0015	8.4	10.0		1066	8.20	134	0.030	0.300	0.340	0.019
	10 30	0030	8.4	10.2		1574	8.20	134	0.030	0.300	0.360	0.020
	10 30	0055	8.4	9.8		1266	8.20	135	0.030	0.300	0.360	0.022
	10 30	0080	8.3	9.6		1198	8.20	133	0.020	0.400	0.340	0.020
75/06/11	13 00	0000	23.2	9.0	190	1268	8.25	130	0.150	3.300	0.100	0.008
	13 00	0005	22.9	7.4		1253	8.50	131	0.020	0.500	0.080	0.003
	13 00	0015	22.8	9.6		1248	8.60	129	0.030	0.400	0.090	0.002
	13 00	0030	20.1	9.8		1171	8.50	129	0.030	0.300	0.170	0.007
	13 00	0060	14.4	7.6		1107	8.20	140	0.070	0.400	0.360	0.071
	13 00	0086	12.7	7.0		1070	8.15	140	0.070	0.400	0.370	0.075
75/11/20	14 15	0000	15.7	8.6	84	834	8.35	125	0.040	0.200K	0.180	0.014
	14 15	0005	15.7	8.4		837	8.35	126	0.040	0.200K	0.160	0.014
	14 15	0015	15.7	8.2		840	8.30	128	0.040	0.200K	0.160	0.015
	14 15	0030	15.5	8.4		846	8.30	129	0.040	0.200K	0.160	0.014
	14 15	0060	15.5	8.6J		849	8.30	133	0.050	0.200K	0.160	0.014
	14 15	0086	15.4	8.2		840	8.30	135	0.040	0.200K	0.160	0.014

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L	00031 INCDT LT REMNING PERCENT
75/02/24	10 30	0000	0.057	1.9	
	10 30	0005	0.044		
	10 30	0015	0.043		
	10 30	0030	0.043		1.0
	10 30	0055	0.039		
	10 30	0080	0.043		
75/06/11	13 00	0000	0.029	2.6	
	13 00	0005	0.012		
	13 00	0015	0.014		
	13 00	0030	0.018		
	13 00	0060	0.072		
	13 00	0086	0.075		
75/11/20	14 15	0000	0.037	8.0	
	14 15	0005	0.037		
	14 15	0015	0.036		
	14 15	0030	0.037		
	14 15	0060	0.039		
	14 15	0086	0.035		

K VALUE KNOWN TO BE LESS THAN INDICATED

J VALUE KNOWN TO BE INDICATED

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320132
36 03 47.0 114 48 50.0 3
LAKE MEAD
32003 NEVADA

110191

/TYPA/AMBNT/LAKE

11EPALES 04001002
0999 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
75/02/24	11 55	0000	8.6	9.2	196	1122	8.20	137	0.030	0.500	0.380	0.020
	11 55	0005	8.5	9.0		1088	8.10	135	0.020K	0.300	0.370	0.019
	11 55	0015	8.5	9.0		1132	8.10	135	0.020	0.300	0.370	0.017
	11 55	0030	8.4	9.0		1153	8.10	136	0.030	0.400	0.370	0.026
	11 55	0055	8.5	9.0		1203	8.10	136	0.020	0.300	0.370	0.022
	11 55	0085	8.4	9.0		1075	8.10	136	0.020	0.400	0.370	0.020
	11 55	0105	8.4	9.0		1197	8.10	135	0.020	0.300	0.360	0.018
	11 55	0135	8.5	9.0		1197	8.10	136	0.020	0.300	0.360	0.017
	11 55	0165	8.5	9.0		1102	8.10	135	0.020	0.400	0.360	0.018
75/06/11	13 35	0000	24.3	9.0	190	1260	8.50	128	0.030	0.700	0.120	0.006
	13 35	0005	23.0	9.2		1250	8.50	128	0.020	0.500	0.120	0.003
	13 35	0015	22.3	9.0		1231	8.50	127	0.030	0.400	0.130	0.004
	13 35	0030	21.5	9.0		1210	8.30	130	0.030	0.500	0.140	0.003
	13 35	0060	14.6	8.0		1045	8.20	139	0.060	0.400	0.250	0.003
	13 35	0100	12.1	8.6		999	8.10	137	0.030	0.400	0.320	0.006
	13 35	0156	10.7	8.0		965	8.15	128	0.030	0.400	0.120	0.003
75/11/20	14 40	0000	16.1	7.8	180	845	8.20	137	0.020	0.200K	0.200	0.006
	14 40	0005	16.1	7.8		860	8.20	131	0.030	0.200	0.210	0.007
	14 40	0015	16.1	7.4		853	8.20	131	0.030	0.200K	0.210	0.006
	14 40	0045	16.0	7.8		857	8.20	130	0.030	0.200K	0.210	0.005
	14 40	0090	16.0	7.8		851	8.20	130	0.030	0.200K	0.200	0.006
	14 40	0130	15.9	7.2		851	8.00	125	0.020K	0.200K	0.220	0.007
	14 40	0140	13.6	4.6		810	7.80	145	0.020K	0.300	0.420	0.007
	14 40	0171	12.5	5.0		775	7.90	136	0.020	0.300	0.230	0.007
75/12/11	10 05	0000		9.2	206	791	8.00	125	0.040	0.200K	0.250	0.006
	10 05	0005	14.1	8.8		798	7.92	126	0.030	0.200K	0.260	0.006
	10 05	0015	14.1	8.4		798	8.00	126	0.040	0.200K	0.260	0.006
	10 05	0030	13.9	8.6		799	7.99	125	0.050	0.200K	0.260	0.006
	10 05	0050	14.0	8.0		818	7.99	124	0.040	0.200K	0.260	0.006
	10 05	0100	13.9	9.0		818	7.98	125	0.050	0.200K	0.260	0.007
	10 05	0215	11.6	6.4		790	7.74	140	0.030	0.200K	0.430	0.009

K VALUE KNOWN TO BE LESS
THAN INDICATED

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320132
36 03 47.0 114 48 50.0 3
LAKE MEAD
32003 NEVADA
110191

11EPALES 04001002
0999 FEET DEPTH CLASS 00

/TYPA/AMBNT/LAKE

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L	00031 INCDT LT RFMNING PERCENT
75/02/24	11 55	0000	0.036	1.6	
	11 55	0005	0.038		
	11 55	0015	0.037		
	11 55	0030	0.039		1.0
	11 55	0055	0.039		
	11 55	0085	0.039		
	11 55	0105	0.035		
	11 55	0135	0.037		
	11 55	0165	0.037		
75/06/11	13 35	0000	0.012	2.1	
	13 35	0005	0.013		
	13 35	0015	0.011		
	13 35	0030	0.011		
	13 35	0060	0.009		
	13 35	0100	0.024		
	13 35	0156	0.010		
75/11/20	14 40	0000	0.020	4.5	
	14 40	0005	0.018		
	14 40	0015	0.018		
	14 40	0045	0.018		
	14 40	0090	0.018		
	14 40	0130	0.020		
	14 40	0140	0.015		
	14 40	0171	0.015		
75/12/11	10 05	0000	0.019	4.1	
	10 05	0005	0.017		
	10 05	0015	0.017		
	10 05	0030	0.017		
	10 05	0050	0.016		
	10 05	0100	0.015		
	10 05	0215	0.015		

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320133
36 01 25.0 114 43 40.0 3
LAKE MEAD
32003 NEVADA

/TYPA/AMBNT/LAKE

11EPALES 04001002
0999 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
75/02/24	14 30	0000	9.0	9.0	184	1090	8.20	136	0.020K	0.400	0.360	0.017
	14 30	0005	8.9	10.0		1075	8.20	138	0.020K	0.300	0.340	0.016
	14 30	0015	8.8	9.6		1124	8.20	137	0.020K	0.400	0.360	0.017
	14 30	0030	8.7	9.0		1101	8.20	137	0.020K	0.400	0.360	0.017
	14 30	0060	8.6	9.0		1106	8.20	137	0.020	0.300	0.360	0.017
	14 30	0090	8.5	9.0		1104	8.10	138	0.020	0.300	0.360	0.016
	14 30	0125	8.5	9.0		1110	8.10	138	0.020	0.300	0.340	0.017
	14 30	0160	8.5	9.2		1095	8.10	138	0.020	0.300	0.360	0.017
75/06/11	14 05	0000	23.2	9.0	288	1262	8.55	133	0.050	0.900	0.150	0.003
	14 05	0005	22.8	9.2		1247	8.50	131	0.030	0.500	0.140	0.004
	14 05	0015	22.1	9.0		1231	8.50	131	0.030	0.400	0.140	0.003
	14 05	0030	21.5	8.8		1213	8.30	132	0.040	0.500	0.150	0.008
	14 05	0060	14.2	8.0		1045	8.20	139	0.080	0.400	0.240	0.007
	14 05	0100	11.7	8.0		988	8.10	139	0.030	0.400	0.360	0.013
	14 05	0150	10.7	8.4		965	8.10	139	0.030	0.400	0.390	0.020
	14 05	0200	10.2	8.4		955	8.50	140	0.030	0.300	0.410	0.022
75/11/20	15 15	0000	16.2	7.2	144	840	8.10	131	0.020	0.400	0.220	0.002K
	15 15	0005	16.2	7.2		852	8.10	132	0.020	0.200	0.220	0.002K
	15 15	0030	16.2	7.2		850	8.10	129	0.020	0.200	0.220	0.002K
	15 15	0054	16.2	7.2		858	8.10	128	0.020	0.200	0.220	0.008
	15 15	0085	16.2	7.0		840	8.10	136	0.020	0.200	0.370	0.005
	15 15	0120	15.9	6.0		836	8.00	138	0.020	0.200	0.420	0.007
	15 15	0150	13.3	5.0		802	7.80	141	0.020	0.300	0.420	0.008
	15 15	0190	12.3	6.0		768	7.95	141	0.020	0.300	0.420	0.013
	15 15	0230	12.3	7.0		727	8.00	140	0.020	0.200	0.420	0.011

K VALUE KNOWN TO BE LESS THAN INDICATED

40

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320133
36 01 25.0 114 43 40.0 3
LAKE MEAD
32003 NEVADA

/TYPA/AMBNT/LAKE

11EPALES 04001002
0999 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L	00031 INCDT LT RFMNING PERCENT
75/02/24	14 30	0000	0.041	1.4	
	14 30	0005	0.041		
	14 30	0015	0.041		
	14 30	0030	0.040		1.0
	14 30	0060	0.038		
	14 30	0090	0.036		
	14 30	0125	0.036		
	14 30	0160	0.040		
75/06/11	14 05	0000	0.011	1.9	
	14 05	0005	0.010		
	14 05	0015	0.011		
	14 05	0030	0.012		
	14 05	0060	0.013		
	14 05	0100	0.012		
	14 05	0150	0.019		
	14 05	0200	0.020		
75/11/20	15 15	0000	0.016	3.7	
	15 15	0005	0.015		
	15 15	0030	0.017		
	15 15	0054	0.014		
	15 15	0085	0.015		
	15 15	0120	0.012		
	15 15	0150	0.011		
	15 15	0190	0.014		
	15 15	0230	0.014		

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320134
36 07 45.0 114 42 25.0 3
LAKE MEAD
32003 NEVADA

/TYPA/AMBNT/LAKE

11EPALES 04001002
0154 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
75/02/24	15 30	0000	8.8	10.0	228	1103	8.30	134	0.020	0.300	0.340	0.011
	15 30	0005	8.5	9.4		1100	8.20	140	0.020K	0.200	0.340	0.012
	15 30	0015	8.5	9.4		1100	8.20	140	0.020K	0.300	0.350	0.013
	15 30	0030	8.5	9.4		1130	8.20	135	0.020K	0.300	0.370	0.014
	15 30	0060	8.5	9.0		1129	8.20	135	0.020K	0.300	0.360	0.012
	15 30	0090	8.5	9.2		1106	8.20	135	0.020K	0.300	0.360	0.012
	15 30	0120	8.5	9.4		1116	8.20	137	0.020K	0.300	0.350	0.018
	15 30	0150	8.3	9.4		1108	8.20	136	0.020K	0.300	0.340	0.013
75/06/11	14 45	0000	22.2	10.0	228	1229	8.70	143	0.020	0.600	0.200	0.004
	14 45	0005	22.2	8.8		1227	8.60	138	0.030	0.300	0.170	0.003
	14 45	0015	20.7	9.6		1187	8.60	140	0.030	0.300	0.200	0.002
	14 45	0030	20.0	8.8		1168	8.40	143	0.030	0.300	0.220	0.002
	14 45	0060	15.6	8.6		1052	8.40	145	0.040	0.300	0.280	0.002
	14 45	0100	12.1	8.4		991	8.20	140	0.050	0.300	0.320	0.003
	14 45	0150	10.4	8.0		946	8.10	143	0.030	0.200	0.420	0.013
	14 45	0200	9.8	7.6		929	8.10	142	0.030	0.200	0.420	0.015
75/11/21	13 15	0000	16.2		240	807	8.30	141	0.020K	0.200K	0.300	0.002K
	13 15	0005	16.2	7.8		794	8.20	132	0.020K	0.200K	0.220	0.002K
	13 15	0025	16.2	7.4		820	8.20	132	0.020K	0.200K	0.220	0.002K
	13 15	0045	16.2	7.4		819	8.20	131	0.020K	0.200K	0.220	0.002K
	13 15	0080	16.1	7.4		842	8.20	129	0.020K	0.200K	0.210	0.004
	13 15	0110	16.1	7.0		811	8.10	125	0.020K	0.200K	0.210	0.002
	13 15	0150	13.3	5.2		767	7.90	139	0.020K	0.200K	0.420	0.003

K VALUE KNOWN TO BE LESS
THAN INDICATED

42

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320134
36 07 45.0 114 42 25.0 3
LAKE MEAD
32003 NEVADA

/TYPA/AMBNT/LAKE

11EPALES 04001002
0154 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L	00031 INCDT LT RFMNING PERCENT
75/02/24	15 30	0000	0.037	2.4	
	15 30	0005	0.034		
	15 30	0015	0.032		
	15 30	0030	0.035		1.0
	15 30	0060	0.033		
	15 30	0090	0.031		
	15 30	0120	0.035		
	15 30	0150	0.036		
75/06/11	14 45	0000	0.012	1.6	
	14 45	0005	0.010		
	14 45	0015	0.009		
	14 45	0030	0.009		
	14 45	0060	0.008		
	14 45	0100	0.009		
	14 45	0150	0.016		
	14 45	0200	0.019		
75/11/21	13 15	0000	0.012	4.3	
	13 15	0005	0.013		
	13 15	0025	0.012		
	13 15	0045	0.013		
	13 15	0080	0.013		
	13 15	0110	0.012		
	13 15	0150	0.009		

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320135
36 28 20.0 114 20 37.0 3
LAKE MEAD
32003 NEVADA

110191

11EPALES
0045 FEET DEPTH

04001002
CLASS 00

/TYPA/AMBNT/LAKE

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
75/02/25	08 45	0000	7.5	10.6	108	1074	8.10	143	0.020K	0.400	0.350	0.005
	08 45	0005	7.6	10.2		1036	8.15	142	0.020K	0.300	0.340	0.003
	08 45	0015	7.3	10.6		1057	8.20	142	0.020K	0.400	0.350	0.003
	08 45	0022	7.2	10.5		1045	8.30	142	0.020K	0.400	0.340	0.002
	08 45	0030	7.2	10.6		1027	8.30	142	0.020	0.300	0.350	0.003
	08 45	0040	7.1	10.4		1055	8.30	141	0.020K	0.300	0.340	0.003
75/06/12	10 30	0000	20.9	9.2	276	1215	8.45	144	0.040	0.600	0.280	0.002K
	10 30	0005	20.6	9.0		1193	8.45	144	0.040	0.300	0.280	0.002K
	10 30	0020	19.7	8.8		1177	8.45	141	0.030	0.200	0.280	0.002K
	10 30	0040	16.9	8.2		1111	8.25	145	0.040	0.300	0.300	0.002K
	10 30	0054	15.6	8.4		1070	8.25	145	0.040	0.300	0.320	0.002K
75/11/21	15 10	0000	14.7	10.4	120	782	8.30	140	0.020K	0.200K	0.230	0.002
	15 10	0005	14.7	8.6		803	8.30	141	0.020K	0.200K	0.220	0.002K
	15 10	0025	14.6	8.4		800	8.30	142	0.020K	0.200K	0.220	0.002K
	15 10	0041	14.6	8.4		808	8.30	141	0.020K	0.200K	0.220	0.002K
	15 10	0045	14.6	8.6		795	8.30	143	0.020K	0.200K	0.220	0.002K

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L	00031 INCDT LT REMNING PERCENT
75/02/25	08 45	0000	0.023	1.9	
	08 45	0005	0.023		
	08 45	0015	0.021		1.0
	08 45	0022	0.021		
	08 45	0030	0.020		
	08 45	0040	0.022		
75/06/12	10 30	0000	0.009	1.0	
	10 30	0005	0.005		
	10 30	0020	0.008		
	10 30	0040	0.008		
	10 30	0054	0.006		
75/11/21	15 10	0000	0.009	1.9	
	15 10	0005	0.008		
	15 10	0025	0.009		
	15 10	0041	0.008		
	15 10	0045	0.014		

K VALUE KNOWN TO BE
LESS THAN INDICATED

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320136
36 23 00.0 114 22 36.0 3
LAKE MEAD
32003 NEVADA

110191

/TYPA/AMBNT/LAKE

11EPALES 04001002
0148 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
75/02/25	14 35	0000	8.1	10.6	168	1045	8.30	143	0.020	0.600	0.370	0.004
	14 35	0022	7.7	10.8		1038	8.30	143	0.020K	0.300	0.360	0.002
	14 35	0040	7.6	10.6		1019	8.30	142	0.020K	0.300	0.360	0.003
	14 35	0060	7.4	10.4		1043	8.30	142	0.020K	0.300	0.360	0.003
	14 35	0085	7.3	10.0		1009	8.30	143	0.020K	0.300	0.350	0.002K
	14 35	0110	7.3	10.2		1048	8.30	142	0.020K	0.300	0.350	0.002K
	14 35	0144	7.1	10.4		1060	8.30	143	0.030	0.300	0.360	0.003
75/06/12	10 05	0000	21.3	8.8	336	1216	8.55	141	0.060	0.400	0.310	0.005
	10 05	0005	21.2	8.8		1211	8.55	144	0.040	0.300	0.290	0.002
	10 05	0030	19.2	8.6		1136	8.40	143	0.040	0.300	0.310	0.002
	10 05	0060	14.2	9.0		1020	8.20	141	0.040	0.300	0.350	0.002
	10 05	0100	11.7	8.0		951	8.20	144	0.040	0.400	0.400	0.002
	10 05	0144	10.4	8.4		920	8.30	144	0.040	0.400	0.400	0.003
75/12/01	09 00	0000	15.7	8.0	120	861	8.00	131	0.020K	0.200	0.270	0.002
	09 00	0005	15.7	8.6		861	8.00	132	0.020K	0.200K	0.260	0.002K
	09 00	0025	15.7	8.6		862	8.00	133	0.020K	0.200	0.260	0.002K
	09 00	0050	15.7	8.2		864	8.00	133	0.020K	0.200	0.260	0.002K
	09 00	0100	15.5	8.4		862	8.00	133	0.020K	0.200	0.260	0.002K
	09 00	0150	15.4	8.6		869	8.00	131	0.020K	0.200K	0.240	0.002

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L	00031 INCDT LT REMNING PERCENT
75/02/25	14 35	0000	0.027	2.1	
	14 35	0022	0.020		1.0
	14 35	0040	0.018		
	14 35	0060	0.020		
	14 35	0085	0.020		
	14 35	0110	0.022		
	14 35	0144	0.023		
75/06/12	10 05	0000	0.004	0.7	
	10 05	0005	0.005		
	10 05	0030	0.006		
	10 05	0060	0.005		
	10 05	0100	0.004		
	10 05	0144	0.023		
75/12/01	09 00	0000	0.007	1.0	
	09 00	0005	0.006		
	09 00	0025	0.006		
	09 00	0050	0.006		
	09 00	0100	0.004		
	09 00	0150	0.018		

K VALUE KNOWN TO BE LESS THAN INDICATED

45

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320137
36 17 37.0 114 23 18.0 3
LAKE MEAD
32003 NEVADA
110191

/TYPA/AMBNT/LAKE

11EPALES 04001002
0240 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
75/02/26	08 45	0000	10.7	10.2	216	761	8.20	144	0.040	1.100	0.380	0.012
	08 45	0005	10.8	10.0		758	8.25	144	0.020K	0.400	0.370	0.012
	08 45	0015	10.4	10.0		757	8.20	144	0.020K	0.300	0.370	0.012
	08 45	0025	10.3	10.0		756	8.20	144	0.020K	0.300	0.380	0.013
	08 45	0050	10.2	10.2		757	8.30	145	0.020K	0.400	0.360	0.013
	08 45	0100	10.1	10.0		758	8.30	146	0.020K	0.500	0.360	0.017
	08 45	0150	10.1	10.4		759	8.30	146	0.020K	0.400	0.360	0.014
	08 45	0180	10.1	10.2		760	8.30	145	0.020K	0.300	0.360	0.014
75/06/12	09 35	0000	21.7	8.8	406	1213	8.60	142	0.040	0.400	0.300	0.002K
	09 35	0005	21.5	8.8		1203	8.60	141	0.030	0.300	0.290	0.002K
	09 35	0030	20.5	8.6		1178	8.60	143	0.040	0.200	0.290	0.004
	09 35	0060	13.9	8.6		991	8.25	142	0.040	0.300	0.360	0.002
	09 35	0100	11.8	8.6		953	8.20	143	0.030	0.300	0.390	0.002
	09 35	0150	10.7	8.6		921	8.20	142	0.030	0.300	0.400	0.003
	09 35	0200	10.1	8.6		914	8.25	143	0.040	0.400	0.400	0.005
75/12/01	09 45	0000	15.8	8.2	180	838	8.00	133	0.020K	0.200K	0.320	0.014
	09 45	0005	15.8	8.4		833	7.90	133	0.020K	0.200K	0.320	0.002
	09 45	0035	15.8	8.2		843	7.90	131	0.020K	0.200K	0.320	0.002K
	09 45	0070	15.8	8.6		842	7.80	131	0.020K	0.200K	0.320	0.002K
	09 45	0100	15.8	8.6		838	7.70	131	0.020K	0.200K	0.320	0.002
	09 45	0150	15.7	7.2		839	7.70	135	0.020K	0.200K	0.400	0.002
	09 45	0200	15.7	6.8		820	7.60	144	0.030	0.200	0.400	0.004

K VALUE KNOWN TO BE LESS
THAN INDICATED

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320137
36 17 37.0 114 23 18.0 3
LAKE MEAD
32003 NEVADA
110191

/TYPA/AMBNT/LAKE

11EPALES 04001002
0240 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L	00031 INCDT LT REMNING PERCENT
75/02/26	08 45	0000	0.027	0.5	
	08 45	0005	0.020		
	08 45	0015	0.019		
	08 45	0025	0.023		
	08 45	0050	0.020		
	08 45	0100	0.025		
	08 45	0150	0.020		
	08 45	0180	0.020		
75/06/12	09 35	0000	0.005	0.6	
	09 35	0005	0.005		
	09 35	0030	0.006		
	09 35	0060	0.005		
	09 35	0100	0.005		
	09 35	0150	0.008		
	09 35	0200	0.008		
75/12/01	09 45	0000	0.006	0.9	
	09 45	0005	0.004		
	09 45	0035	0.006		
	09 45	0070	0.006		
	09 45	0100	0.006		
	09 45	0150	0.009		
	09 45	0200	0.008		

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

32013B
36 11 50.0 114 25 06.0 3
LAKE MEAD
32003 NEVADA

110191

/TYPA/AMBNT/LAKE

11EPALES 04001002
0310 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
75/02/26	09 30	0000	10.9		312	761	8.30	142	0.030	1.800	0.380	0.012
	09 30	0005	10.8	10.0		759	8.30	143	0.020K	0.800	0.380	0.010
	09 30	0015	10.8	9.6		754	8.30	141	0.020	0.800	0.340	0.012
	09 30	0025	10.6	9.6		756	8.30	142	0.020	0.300	0.340	0.012
	09 30	0050	10.5	9.6		755	8.30	141	0.030	0.300	0.380	0.012
	09 30	0100	10.4	10.2		752	8.30	140	0.020	0.300	0.380	0.010
	09 30	0150	10.4	9.8		752	8.30	140	0.030	0.300	0.380	0.016
	09 30	0200	10.4	10.2		752	8.30	138	0.020	0.300	0.370	0.016
75/06/12	09 10	0000	20.3	8.8	444	1164	8.60	144	0.040	0.400	0.320	0.002K
	09 10	0005	20.3	9.0		1156	8.60	143	0.030	0.300	0.320	0.002K
	09 10	0030	18.4	9.0		1103	8.60	144	0.030	0.300	0.330	0.002K
	09 10	0060	16.3	8.8		1038	8.30	142	0.030	0.400	0.320	0.002K
	09 10	0100	12.1	8.8		957	8.25	143	0.040	0.300	0.380	0.002K
	09 10	0150	9.9	9.2		910	8.20	140	0.030	0.400	0.400	0.003
	09 10	0200	9.4	9.0		905	8.25	140	0.030	0.300	0.400	0.003
75/12/02	10 00	0000	16.0	8.2	600	838	8.50	137	0.020K	0.200K	0.330	0.002K
	10 00	0005	16.0	8.6		838	8.50	140	0.020K	0.200	0.330	0.003
	10 00	0015	16.0	8.6		834	8.60	140	0.020K	0.200	0.330	0.002K
	10 00	0040	16.0	8.4		840	8.50	139	0.020K	0.200K	0.330	0.002K
	10 00	0075	16.0	8.4		837	8.50	139	0.020K	0.200K	0.330	0.002K
	10 00	0110	16.0	7.6		839	8.50	138	0.020K	0.200K	0.330	0.002K
	10 00	0150	16.0	8.4		838	8.50	135	0.020K	0.200K	0.330	0.002K
	10 00	0190	14.4	6.2		810	8.20	143	0.020K	0.200K	0.420	0.002K
	10 00	0220	13.9	7.2		802	8.20	138	0.020K	0.200K	0.420	0.002K

K VALUE KNOWN TO BE LESS
THAN INDICATED

48

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

32013R
36 11 50.0 114 25 06.0 3
LAKE MEAD
32003 NEVADA
110191

/TYPA/AMBNT/LAKE

11EPALES 04001002
0310 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L	00031 INCDT LT RFMNING PERCENT
75/02/26	09 30	0000	0.020	0.6	
	09 30	0005	0.018		
	09 30	0015	0.020		
	09 30	0025	0.020		
	09 30	0050	0.020		
	09 30	0100	0.020		
	09 30	0150	0.020		
	09 30	0200	0.023		
75/06/12	09 10	0000	0.006	0.6	
	09 10	0005	0.005		
	09 10	0030	0.006		
	09 10	0060	0.005		
	09 10	0100	0.005		
	09 10	0150	0.005		
	09 10	0200	0.006		
75/12/02	10 00	0000	0.006	0.9	
	10 00	0005	0.007		
	10 00	0015	0.005		
	10 00	0040	0.005		
	10 00	0075	0.005		
	10 00	0110	0.005		
	10 00	0150	0.005		
	10 00	0190	0.005		
	10 00	0220	0.004		

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320139
36 07 52.0 114 53 05.0 3
LAKE MEAD
32003 NEVADA
110191

/TYPA/AMBNT/LAKE

11EPALES 04001002
0015 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
75/02/24	13 20	0000	10.9	13.9		866	8.40	138	0.070	0.300	0.440	0.070
75/11/20	13 50	0000	15.4	9.0	65	829	8.40	117	0.030	0.200	0.020K	0.010
	13 50	0005	15.4	8.6		818	8.40	126	0.030	0.200K	0.160	0.014
	13 50	0015	15.3	8.4		827	8.35	129	0.030	0.200K	0.160	0.018
	13 50	0025	15.1	8.4		840	8.35	130	0.030	0.200K	0.160	0.015
	13 50	0041	14.5	8.6		844	8.40	131	0.030	0.200K	0.200	0.028

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L	00031 INCDT LT REMNING PERCENT
75/02/24	13 20	0000	0.111	9.0	
75/11/20	13 50	0000	0.044	2.5	
	13 50	0005	0.054		
	13 50	0015	0.049		
	13 50	0025	0.046		
	13 50	0041	0.060		

K VALUE KNOWN TO BE LESS THAN INDICATED

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320140
36 08 30.0 114 35 50.0 3
LAKE MEAD
32003 NEVADA

/TYPA/AMBNT/LAKE

11EPALES
0999 FEET DEPTH CLASS 00 04001002

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
75/02/25	14 25	0000	11.8	11.0	300	806	8.20	148	0.030	0.300	0.370	0.012
	14 25	0005	11.2	11.1		795	8.20	147	0.020K	0.300	0.360	0.008
	14 25	0015	11.1	10.3		795	8.20	147	0.020K	0.200	0.370	0.008
	14 25	0030	11.0	10.3		794	8.20	146	0.020	0.200K	0.370	0.008
	14 25	0045	11.0	10.3		794	8.20	136	0.020	0.300	0.360	0.007
	14 25	0060	11.0	10.4		771	8.20	138	0.020	0.300	0.350	0.007
	14 25	0090	11.0	10.5		791	8.20	138	0.020	0.300	0.350	0.006
	14 25	0120	10.8	10.3		771	8.20	141	0.020	0.200	0.370	0.006
	14 25	0150	10.8	10.2		768	8.20	140	0.030	0.200	0.370	0.015
	14 25	0180	10.6	10.2		764	8.20	140	0.020	0.200	0.370	0.005
	14 25	0200	10.7	9.5		766	8.10	141	0.020	0.200	0.380	0.006
75/06/11	15 20	0000	21.1	8.6	444	1180	8.55	148	0.040	0.600	0.310	0.003
	15 20	0005	20.8	9.0		1170	8.55	145	0.030	0.200	0.300	0.002K
	15 20	0015	20.2	9.0		1155	8.55	147	0.030	0.200	0.310	0.002K
	15 20	0050	15.6	9.0		1031	8.25	147	0.030	0.200K	0.330	0.002K
	15 20	0100	12.2	9.0		967	8.20	145	0.030	0.200K	0.390	0.002K
	15 20	0150	10.5	8.8		923	8.20	145	0.030	0.200K	0.400	0.002K
	15 20	0200	10.0	8.9		913	8.60	146	0.280	0.300	0.390	0.002K
75/11/21	13 45	0000	16.1	7.8	204	796	8.20	132	0.020K	0.200K	0.300	0.002K
	13 45	0005	16.1	7.6		792	8.20	136	0.020K	0.200K	0.300	0.002K
	13 45	0025	16.1	7.4		795	8.25	134	0.020K	0.200K	0.300	0.002K
	13 45	0058	16.1	7.4		815	8.20	136	0.020K	0.200K	0.300	0.002K
	13 45	0105	15.8	7.0		803	8.10	139	0.020K	0.200K	0.300	0.002K
	13 45	0140	13.7	5.8		785	7.95	144	0.020K	0.200K	0.350	0.002K
	13 45	0190	11.6	7.0		708	8.00	143	0.020K	0.200K	0.440	0.002K
	13 45	0230	11.1	6.6		720	8.10	144	0.020K	0.200K	0.420	0.002K
75/12/01	10 45	0000	16.7	8.8	600	871	8.00	139	0.020K	0.200K	0.420	0.002K
	10 45	0005	16.7	7.6		870	8.00	138	0.020	0.200	0.320	0.002K
	10 45	0020	16.3	7.8		870	8.00	136	0.030	0.200	0.340	0.002K
	10 45	0040	16.6	7.4		870	7.90	138	0.020	0.200	0.330	0.002K
	10 45	0090	16.5	7.2		871	7.90	131	0.030	0.300	0.340	0.002
	10 45	0145	16.3	7.0		862	7.80	131	0.020K	0.200	0.340	0.002
	10 45	0200	14.5	7.2		824	7.80	135	0.020K	0.300	0.390	0.002K
									0.020K	0.200K	0.430	0.002K

K VALUE KNOWN TO BE LESS
THAN INDICATED

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320140
36 08 30.0 114 35 50.0 3
LAKE MEAD
32003 NEVADA

/TYPA/AMBNT/LAKE

11EPALES 04001002
0999 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L	00031 INCDT LT REMNING PERCENT
75/02/25	14 25	0000	0.016	1.0	
	14 25	0005	0.017		
	14 25	0015	0.017		
	14 25	0030	0.017		
	14 25	0045	0.014		
	14 25	0060	0.014		
	14 25	0090	0.015		
	14 25	0120	0.011		
	14 25	0150	0.012		
	14 25	0180	0.012		
	14 25	0200	0.013		
75/06/11	15 20	0000	0.006	1.2	
	15 20	0005	0.005		
	15 20	0015	0.007		
	15 20	0050	0.006		
	15 20	0100	0.005		
	15 20	0150	0.006		
	15 20	0200	0.005		
75/11/21	13 45	0000	0.007	1.4	
	13 45	0005	0.007		
	13 45	0025	0.008		
	13 45	0058	0.008		
	13 45	0105	0.006		
	13 45	0140	0.005		
	13 45	0190	0.005		
	13 45	0230	0.006		
75/12/01	10 45	0000	0.008	1.2	
	10 45	0005	0.006		
	10 45	0020	0.008		
	10 45	0040	0.009		
	10 45	0090	0.012		
	10 45	0145	0.006		
	10 45	0200	0.005		

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320141
36 08 20.0 114 27 20.0 3
LAKE MEAD
32003 NEVADA
110191

/TYPA/AMBNT/LAKE

11EPALES 04001002
0999 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
75/02/25	13 35	0000	11.9	11.5	336	782	8.25	156	0.020	0.200	0.380	0.004
	13 35	0005	11.3	11.1		780	8.25	156	0.020K	0.200K	0.370	0.003
	13 35	0015	10.9	10.8		773	8.25	155	0.020	0.200K	0.380	0.015
	13 35	0030	10.5	10.5		770	8.25	155	0.020K	0.200K	0.370	0.004
	13 35	0045	10.7	11.0		768	8.20	154	0.020	0.200K	0.380	0.013
	13 35	0060	10.8	11.2		764	8.20	154	0.020K	0.200	0.380	0.004
	13 35	0070	10.6	11.2		760	8.25	153	0.020	0.200K	0.390	0.004
	13 35	0120	10.6	11.2		759	8.25	153	0.020	0.200	0.380	0.011
	13 35	0150	10.5	11.2		758	8.25	152	0.020K	0.200K	0.380	0.013
	13 35	0200	10.5	11.2		756	8.25	152	0.020K	0.200K	0.390	0.005
75/06/12	08 40	0000	20.7	7.8	432	1174	8.40	142	0.080	1.100	0.330	0.007
	08 40	0005	20.7	9.0		1170	8.60	145	0.040	0.400	0.320	0.004
	08 40	0030	18.8	9.0		1126	8.60	143	0.040	0.300	0.320	0.003
	08 40	0060	15.1	9.0		1028	8.30	144	0.040	0.300	0.360	0.003
	08 40	0100	11.9	8.8		953	8.30	141	0.040	0.300	0.380	0.002
	08 40	0150	10.5	8.8		925	8.25	139	0.030	0.300	0.390	0.002
	08 40	0200	9.8	9.0		918	8.25	140	0.030	0.300	0.400	0.002K
75/11/21	10 45	0000	15.7	8.2	300	751	8.30	135	0.020K	0.200K	0.310	0.002K
	10 45	0005	15.7	8.0		811	8.30	135	0.020K	0.200K	0.300	0.002K
	10 45	0030	15.7	8.2		800	8.35	135	0.020K	0.200	0.300	0.002K
	10 45	0069	15.7	8.0		805	8.35	135	0.020K	0.200K	0.300	0.002K
	10 45	0095	15.7	8.0		769	8.35	138	0.020K	0.200K	0.300	0.005
	10 45	0125	15.2	6.6		759	8.10	140	0.020K	0.200K	0.370	0.002
	10 45	0165	12.8	6.0		740	8.00	148	0.020K	0.200K	0.420	0.002K
	10 45	0200	11.8	6.4		710	8.00	150	0.020K	0.200K	0.420	0.002K
	10 45	0230	11.3	6.6		705	8.00	143	0.020K	0.200K	0.410	0.002K
75/12/02	10 40	0000	16.2	8.4	600	835	8.60	140	0.020	0.200	0.320	0.002K
	10 40	0005	16.3	8.4		849	8.40	139	0.030	0.200	0.320	0.002K
	10 40	0015	16.2	8.4		846	8.50	140	0.030	0.000R	0.320	0.002K
	10 40	0040	16.2	8.4		848	8.60	138	0.020	0.200	0.320	0.002K
	10 40	0075	16.2	8.4		846	8.60	137	0.030	0.200	0.320	0.002K
	10 40	0110	16.2	8.4		846	8.60	138	0.030	0.200	0.320	0.002K
	10 40	0150	16.0	7.8		827	8.60	134	0.020K	0.200K	0.340	0.002K
	10 40	0190	14.5	7.2		820	8.20	139	0.020K	0.000R	0.420	0.002K
	10 40	0220	14.0	7.6		810	8.20	139	0.020K	0.200K	0.420	0.002K

K VALUE KNOWN TO BE LESS THAN INDICATED

R VALUE INDICATES NO RESULT REPORTED

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320141
36 08 20.0 114 27 20.0 3
LAKE MEAD
32003 NEVADA
110191

/TYPA/AMBNT/LAKE

11EPALES 04001002
0999 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L	00031 INCDT LT PENNING PERCENT
75/02/25	13 35	0000	0.011	1.0	
	13 35	0005	0.013		
	13 35	0015	0.017		
	13 35	0030	0.013		
	13 35	0045	0.012		
	13 35	0060	0.011		
	13 35	0070	0.012		
	13 35	0120	0.011		
	13 35	0150	0.012		
	13 35	0200	0.011		
75/06/12	08 40	0000	0.015	0.5	
	08 40	0005	0.008		
	08 40	0030	0.006		
	08 40	0060	0.005		
	08 40	0100	0.005		
	08 40	0150	0.004		
	08 40	0200	0.005		
75/11/21	10 45	0000	0.010	1.2	
	10 45	0005	0.007		
	10 45	0030	0.007		
	10 45	0069	0.006		
	10 45	0095	0.008		
	10 45	0125	0.006		
	10 45	0165	0.006		
	10 45	0200	0.005		
	10 45	0230	0.005		
75/12/02	10 40	0000	0.005	1.0	
	10 40	0005	0.005		
	10 40	0015	0.0008		
	10 40	0040	0.005		
	10 40	0075	0.005		
	10 40	0110	0.005		
	10 40	0150	0.005		
	10 40	0190	0.0008		
	10 40	0220	0.004		

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320142
36 04 00.0 114 18 50.0 3
LAKE MEAD
32003 NEVADA

110191

/TYPA/AMBNT/LAKE

11EPALES 04001002
0999 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
75/02/25	10 00	0000	11.0	11.8	336	749	8.25	156	0.020	0.500	0.390	0.010
	10 00	0005	10.9	11.9		748	8.25	155	0.020K	0.300	0.390	0.008
	10 00	0015	10.7	11.3		745	8.25	155	0.020K	0.200	0.390	0.006
	10 00	0030	10.6	11.5		743	8.25	156	0.020K	0.200	0.390	0.005
	10 00	0050	10.5	11.5		738	8.25	156	0.020K	0.200K	0.390	0.004
	10 00	0080	10.5	11.4		736	8.25	157	0.020K	0.200K	0.400	0.004
	10 00	0110	10.4	11.4		738	8.25	158	0.020K	0.200K	0.390	0.004
	10 00	0140	10.4	11.6		737	8.25	158	0.020K	0.200K	0.390	0.004
	10 00	0170	10.4	11.6		738	8.25	159	0.020K	0.200K	0.400	0.004
	10 00	0200	10.2	11.5		739	8.25	158	0.020K	0.200K	0.390	0.005
75/06/12	11 10	0000	22.1	8.8	480	1171	8.65	154	0.050	0.600	0.350	0.002K
	11 10	0005	21.4	8.6		1149	8.65	150	0.040	0.300	0.370	0.017K
	11 10	0030	20.1	8.8		1123	8.60	151	0.040	0.200	0.360	0.003
	11 10	0060	15.0	8.8		976	8.35	154	0.040	0.200	0.420	0.003
	11 10	0100	11.4	9.0		913	8.25	146	0.030	0.300	0.420	0.002
	11 10	0150	10.3	8.8		900	8.25	143	0.030	0.200	0.410	0.010K
	11 10	0200	9.8	8.8		876		148	0.030	0.200	0.400	0.003
75/12/02	09 45	0000	16.4	8.4	600	835	8.20	133	0.020K	0.200K	0.340	0.002K
	09 45	0005	16.4	7.8		835	8.60	132	0.020K	0.200K	0.340	0.002K
	09 45	0015	16.4	8.2		830	8.60	133	0.020K	0.200K	0.330	0.002K
	09 45	0040	16.4	8.6		834	8.50	139	0.020	0.200K	0.320	0.002K
	09 45	0075	16.4	8.6		835	8.50	139	0.020	0.200K	0.330	0.002K
	09 45	0110	16.4	8.4		832	8.50	139	0.020K	0.200K	0.330	0.002K
	09 45	0150	15.1	7.6		815	8.20	147	0.020	0.200K	0.440	0.002K
	09 45	0190	14.4	7.0		795	8.20	145	0.020	0.200K	0.440	0.002K
	09 45	0220	13.9	5.6		770	8.20	149	0.020	0.200K	0.440	0.002K

K VALUE KNOWN TO BE LESS
THAN INDICATED

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320142
36 04 00.0 114 18 50.0 3
LAKE MEAD
32003 NEVADA

110191

/TYPA/AMBNT/LAKE

11EPALES 04001002
0999 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L	00031 INCDT LT REMNING PERCENT
75/02/25	10 00	0000	0.015	0.5	
	10 00	0005	0.011		
	10 00	0015	0.011		
	10 00	0030	0.010		
	10 00	0050	0.011		
	10 00	0080	0.010		
	10 00	0110	0.009		
	10 00	0140	0.013		
	10 00	0170	0.010		
	10 00	0200	0.011		
75/06/12	11 10	0000	0.006	0.8	
	11 10	0005	0.005		
	11 10	0030	0.006		
	11 10	0060	0.006		
	11 10	0100	0.007		
	11 10	0150	0.005		
	11 10	0200	0.005		
75/12/02	09 45	0000	0.005	1.0	
	09 45	0005	0.005		
	09 45	0015	0.005		
	09 45	0040	0.006		
	09 45	0075	0.005		
	09 45	0110	0.006		
	09 45	0150	0.005		
	09 45	0190	0.004		
	09 45	0220	0.006		

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320143
36 06 23.0 114 07 05.0 3
LAKE MEAD
32003 NEVADA
110191

/TYPA/AMBNT/LAKE

11EPALES 04001002
0999 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
75/02/25	08 45	0000	11.0	12.8	228	714	8.30	159	0.040	0.800	0.380	0.008
	08 45	0005	10.9	12.8		710	8.40	162	0.020K	0.300	0.380	0.006
	08 45	0015	10.6	12.9		703	8.40	145	0.020K	0.400	0.390	0.005
	08 45	0060	10.4	12.0		701	8.40	148	0.020	0.300	0.370	0.005
	08 45	0095	10.4	12.1		700	8.35	150	0.020K	0.400	0.370	0.006
	08 45	0120	10.3	12.2		697	8.30	152	0.020K	0.300	0.370	0.008
	08 45	0165	10.2	12.4		695	8.30	152	0.020K	0.400	0.380	0.008
	08 45	0195	8.8	14.2		667	8.35	160	0.020K	0.400	0.420	0.008
75/06/12	14 15	0000	24.7	9.0	366	1206	8.50	158	0.070	0.700	0.410	0.005
	14 15	0005	24.5	9.2		1143	8.50	159	0.030	0.400	0.410	0.005
	14 15	0030	21.2	9.0		1077	8.50	158	0.030	0.200	0.430	0.004
	14 15	0060	17.0	8.6		977	8.30	157	0.040	0.300	0.480	0.011K
	14 15	0100	13.5	8.2		903	8.20	160	0.030	0.200	0.490	0.004
	14 15	0150	10.8	8.0		853	8.20	154	0.030	0.300	0.470	0.003
	14 15	0195	10.4	8.0		849	8.30	155	0.030	0.300	0.450	0.005
75/11/21	09 45	0000	15.9	9.0	240	744	8.50	138	0.020K	0.200K	0.250	0.002
	09 45	0005	16.0	8.6		780	8.50	137	0.020K	0.200K	0.240	0.002
	09 45	0025	15.9	8.4		753	8.50	138	0.020K	0.200K	0.240	0.002K
	09 45	0048	15.9	8.4		780	8.50	137	0.020K	0.200K	0.240	0.002K
	09 45	0090	15.9	8.4		784	8.50	136	0.020K	0.200K	0.240	0.002K
	09 45	0120	14.7	8.4		711	8.40	140	0.020K	0.200K	0.300	0.002K
	09 45	0145	14.1	8.2		765	8.30	145	0.020K	0.200K	0.320	0.002K
	09 45	0190	11.7	4.6		687	7.50	150	0.020K	0.200K	0.480	0.002K
	09 45	0226	10.9	3.6		672	7.80	156	0.040	0.200K	0.430	0.002K

K VALUE KNOWN TO BE LESS THAN INDICATED

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320143
36 06 23.0 114 07 05.0 3
LAKE MEAD
32003 NEVADA
110191

/TYPA/AMBNT/LAKE

11EPALES 04001002
0999 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L	00031 INCDT LT RFMNING PERCENT
75/02/25	08 45	0000	0.012	0.8	
	08 45	0005	0.012		
	08 45	0015	0.012		
	08 45	0060	0.010		
	08 45	0095	0.011		
	08 45	0120	0.014		
	08 45	0165	0.013		
	08 45	0195	0.020		
75/06/12	14 15	0000	0.008	0.8	
	14 15	0005	0.008		
	14 15	0030	0.008		
	14 15	0060	0.006		
	14 15	0100	0.005		
	14 15	0150	0.005		
	14 15	0195	0.007		
75/11/21	09 45	0000	0.009	2.2	
	09 45	0005	0.008		
	09 45	0025	0.008		
	09 45	0048	0.009		
	09 45	0090	0.008		
	09 45	0120	0.008		
	09 45	0145	0.012		
	09 45	0190	0.024		
	09 45	0226	0.051		

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320144
36 11 45.0 114 00 50.0 3
LAKE MEAD
04015 NEVADA
110191

/TYPA/AMBNT/LAKE

11EPALES 04001002
0035 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
75/02/24	15 20	0000	9.3	13.1	36	666	8.40	161	0.020K	0.300	0.430	0.005
	15 20	0005	8.2	12.9		666	8.40	163	0.020K	0.300	0.430	0.008
	15 20	0015	7.9	13.1		680	8.40	162	0.020K	0.300	0.450	0.005
	15 20	0025	7.8	13.2		683	8.40	164	0.020K	0.300	0.460	0.006
	15 20	0031	7.7	12.5		695	8.40	166	0.020K	0.400	0.460	0.007
75/06/12	15 00	0000	22.6	8.8		1075	8.45	156	0.040	0.400	0.480	0.011K
	15 00	0005	19.2	9.2		1000	8.40	155	0.030	0.300	0.500	0.013K
	15 00	0015	17.5	9.2		961	8.40	156	0.030	0.400	0.510	0.012K
	15 00	0024	16.9	7.0		949	8.35	156	0.030	0.400	0.520	0.004
75/11/21	09 20	0000	13.7	9.4	120	714	8.45	137	0.020	0.200K	0.250	0.002
	09 20	0005	13.7	9.6		719	8.50	134	0.020K	0.200K	0.230	0.002
	09 20	0015	12.6	9.6		703	8.45	145	0.020K	0.200K	0.290	0.002
	09 20	0030	10.4	10.0		646	8.50	151	0.020K	0.200K	0.400	0.002K

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L	00031 INCDT LT REMNING PERCENT
75/02/24	15 20	0000	0.016	1.6	
	15 20	0005	0.013		
	15 20	0015	0.016		
	15 20	0025	0.016		
	15 20	0031	0.016		
75/06/12	15 00	0000	0.006	0.7	
	15 00	0005	0.006		
	15 00	0015	0.008		
	15 00	0024	0.020		
75/11/21	09 20	0000	0.010	2.1	
	09 20	0005	0.009		
	09 20	0015	0.009		
	09 20	0030	0.029		

K VALUE KNOWN TO BE LESS THAN INDICATED

STORET RETRIEVAL DATE 77/01/25
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320145
36 08 30.0 113 58 23.0 3
LAKE MEAD
04015 NEVADA
110191

/TYPA/AMBNT/LAKE

11EPALES 04001002
0025 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
75/02/24	14 30	0000	7.9	12.9	36	624	8.30	154	0.020	0.300	0.490	0.009
	14 30	0005	7.9	13.3		624	8.30	155	0.020K	0.200	0.490	0.008
	14 30	0015	7.8	13.8		622	8.30	155	0.020K	0.300	0.490	0.008
	14 30	0021	7.8	14.0		622	8.30	155	0.020K	0.300	0.500	0.018
75/06/12	15 40	0000	15.8	9.6	18	929	8.35	147	0.050	0.600	0.500	0.004
	15 40	0005	15.4	9.2		920	8.40	149	0.020K	0.500	0.490	0.003
	15 40	0012	15.3	9.8		919	8.40	149	0.020	0.300	0.500	0.003
75/11/21	09 00	0000	8.6	10.2	22	570	8.20	154	0.030	0.200K	0.470	0.009
	09 00	0005	8.4	10.4		561	8.25	149	0.020	0.200K	0.480	0.005
	09 00	0015	8.5	10.4		736	8.25	151	0.020	0.200K	0.480	0.004

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L	00031 INCDT LT RFMNING PERCENT
75/02/24	14 30	0000	0.018	0.7	
	14 30	0005	0.021		
	14 30	0015	0.021		
	14 30	0021	0.035		
75/06/12	15 40	0000	0.013	1.1	
	15 40	0005	0.015		
	15 40	0012	0.020		
75/11/21	09 00	0000	0.015	0.7	
	09 00	0005	0.009		
	09 00	0015	0.025		

K VALUE KNOWN TO BE LESS
THAN INDICATED

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320151
36 05 02.0 114 47 30.0 3
LAKE MEAD
32003 NEVADA

/TYPA/AMBNT/LAKE

11EPALES 760303 04001002
0103 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
75/12/04	10 00	0000	16.2	5.0	600	865	8.00	127	0.020K	0.200K	0.240	0.005
	10 00	0015	16.2	7.8		904	8.10	120	0.020	0.200	0.240	0.004
	10 00	0020	16.2	5.4		905	8.00	126	0.020K	0.200K	0.230	0.004
	10 00	0040	16.2	9.0		905	8.10	121	0.050	0.200	0.240	0.006
	10 00	0050	16.2	6.0		905	8.10	120	0.020	0.200	0.240	0.004
	10 00	0060	16.2	7.0		909	8.10	122	0.030	0.200	0.240	0.004
	10 00	0080	16.2	8.2		906	8.10	123	0.020	0.200	0.240	0.004
	10 00	0100	16.2	6.4		900	8.10	118	0.020	0.200	0.240	0.004
75/12/08	13 20	0000	14.7	8.4	236	803	7.70	130	0.020	0.200K	0.240	0.006
	13 20	0015	13.8	8.6		795	7.90	131	0.030	0.200K	0.230	0.010
	13 20	0050	13.8	8.4		799	7.85	129	0.030	0.200K	0.230	0.010
	13 20	0100	13.8	8.2		799	7.80	129	0.040	0.300	0.230	0.012
	13 20	0163	13.7	8.0		799	7.80	132	0.040	0.200	0.250	0.020

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L	00031 INCDT LT REMNING PERCENT
75/12/04	10 00	0000	0.019		
	10 00	0015	0.021		
	10 00	0020	0.021		
	10 00	0040	0.023		
	10 00	0050	0.020		
	10 00	0060	0.020		
	10 00	0080	0.020		
	10 00	0100	0.042		
75/12/08	13 20	0000	0.021	3.8	
	13 20	0015	0.020		
	13 20	0050	0.020		
	13 20	0100	0.021		
	13 20	0163	0.033		

K VALUE KNOWN TO BE
LESS THAN INDICATED

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320152
36 05 23.0 114 47 20.0 3
LAKE MEAD
32003 NEVADA

/TYPA/AMBNT/LAKE

11EPALES 760303 04001002
0999 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
75/12/04	11 00	0000	16.3	7.8	18	900	8.10	124	0.020K	0.200K	0.240	0.006
	11 00	0015	16.2	6.2		898	8.10	126	0.020K	0.200K	0.230	0.006
	11 00	0030	16.2	6.6		900	8.10	128	0.020	0.200	0.230	0.005
	11 00	0050	16.2	6.6		898	7.80	130	0.020K	0.400	0.230	0.007
	11 00	0070	16.2	8.0		898	8.00	127	0.020	0.200	0.230	0.006
	11 00	0085	16.2	5.8		897	8.00	130	0.020	0.200	0.220	0.007
	11 00	0100	16.1	8.2		899	8.00	129	0.020	0.200K	0.220	0.008
	11 00	0120	16.1	8.2		905	8.00	128	0.030	0.200K	0.230	0.012
	11 00	0140	16.0	8.4		902	8.00	130	0.030	0.200K	0.230	0.012
	11 00	0160	16.0	8.2		902	8.00	130	0.020	0.200	0.230	0.011
	11 00	0180	15.6	5.8		908	7.60	138	0.020K	0.200K	0.450	0.017
	11 00	0210	14.2	5.0		839	8.00	133	0.020K	0.200K	0.380	0.012
75/12/09	13 20	0000	14.2	8.8	168	785	7.95	121	0.020K	0.200	0.230	0.006
	13 20	0005	14.2	9.6		800	8.00	125	0.020K	0.200K	0.240	0.005
	13 20	0015	14.0	9.2		795	7.90	124	0.020K	0.200K	0.240	0.005
	13 20	0050	13.8	8.4		790	7.80	122	0.020	0.200	0.230	0.008
	13 20	0100	13.8	8.0		790	7.50	132	0.020K	0.200	0.420	0.009
	13 20	0210	11.5	6.4		720	7.45	129	0.020K	0.200	0.430	0.009

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L	00031 INCDT LT REMNING PERCENT
75/12/04	11 00	0000	0.017		
	11 00	0015	0.020		
	11 00	0030	0.019		
	11 00	0050	0.020		
	11 00	0070	0.021		
	11 00	0085	0.021		
	11 00	0100	0.022		
	11 00	0120	0.028		
	11 00	0140	0.026		
	11 00	0160	0.027		
	11 00	0180	0.024		
	11 00	0210	0.019		
75/12/09	13 20	0000	0.019	2.8	
	13 20	0005	0.022		
	13 20	0015	0.018		
	13 20	0050	0.018		
	13 20	0100	0.017		
	13 20	0210	0.014		

K VALUE KNOWN TO BE
LESS THAN INDICATED

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320153
36 05 43.0 114 47 12.0 3
LAKE MEAD
32003 NEVADA

/TYPA/AMBNT/LAKE

11EPALES 760303 04001002
0999 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
75/12/09	10 35	0000	14.2	8.4	240	810	7.70	132	0.020K	0.200K	0.240	0.005
	10 35	0005	14.2	8.4		790	7.70	129	0.020	0.200	0.240	0.008
	10 35	0015	14.1	8.4		785	7.80	129	0.020	0.200K	0.240	0.006
	10 35	0050	14.0	8.4		820	7.60	130	0.020	0.200K	0.240	0.007
	10 35	0100	13.8	8.2		820	7.60	129	0.030	0.200K	0.230	0.009
	10 35	0210	11.6	6.4		760	7.30	139	0.020K	0.200	0.430	0.012

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L	00031 INCDT LT REMNING PERCENT
75/12/09	10 35	0000	0.017	4.2	
	10 35	0005	0.018		
	10 35	0015	0.017		
	10 35	0050	0.020		
	10 35	0100	0.019		
	10 35	0210	0.016		

K VALUE KNOWN TO BE LESS
THAN INDICATED

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320154
36 05 55.0 114 47 07.0 3
LAKE MEAD
32003 NEVADA

/TYPA/AMBNT/LAKE

11EPALES 760303 04001002
0999 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
75/12/09	10 00	0000	14.1	8.6	210	790	7.70	133	0.020K	0.200K	0.240	0.004
	10 00	0005	14.1	8.4		800	7.70	131	0.020K	0.200	0.250	0.005
	10 00	0015	14.1	8.4		820	7.70	133	0.020K	0.200K	0.240	0.006
	10 00	0050	14.1	8.2		790	7.70	134	0.020	0.200K	0.240	0.006
	10 00	0100	13.9	8.0		780	7.50	134	0.020	0.200	0.230	0.009
	10 00	0210	11.6	6.4		720	7.40	145	0.020K	0.200K	0.420	0.010

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L	00031 INCDT LT REMNING PERCENT
75/12/09	10 00	0000	0.017	3.7	
	10 00	0005	0.018		
	10 00	0015	0.015		
	10 00	0050	0.015		
	10 00	0100	0.015		
	10 00	0210	0.016		

K VALUE KNOWN TO BE LESS
THAN INDICATED

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320155
36 06 13.0 114 46 56.0 3
LAKE MEAD
32003 NEVADA

/TYPA/AMBNT/LAKE

11EPALES 760303 04001002
0172 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
75/12/08	14 15	0000	14.2	8.8	256	789	7.90	132	0.020K	0.200K	0.240	0.005
	14 15	0015	14.1	8.2		800	7.80	132	0.020K	0.200K	0.240	0.004
	14 15	0050	14.0	7.8		792	7.80	134	0.020	0.200K	0.240	0.005
	14 15	0100	13.9	8.2		790	7.80	133	0.030	0.200K	0.230	0.008
	14 15	0168	13.7	8.2		789	7.80	131	0.030	0.200K	0.240	0.010
75/12/09	09 00	0000	14.0	8.6	240	780	7.70	133	0.020K	0.200K	0.230	0.005
	09 00	0005	14.1	8.2		800	7.70	136	0.020K	0.200K	0.240	0.005
	09 00	0015	14.0	8.4		805	7.60	133	0.020K	0.200	0.230	0.004
	09 00	0050	14.0	8.4		805	7.60	132	0.020K	0.200	0.230	0.003
	09 00	0100	13.9	8.4		790	7.80	133	0.020	0.200	0.220	0.008
	09 00	0140	13.8	8.2		800	7.60	134	0.020	0.200K	0.230	0.009

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L	00031 INCDT LT REMNING PERCENT
75/12/08	14 15	0000	0.018	3.2	
	14 15	0015	0.017		
	14 15	0050	0.018		
	14 15	0100	0.020		
	14 15	0168	0.028		
75/12/09	09 00	0000	0.016	4.2	
	09 00	0005	0.019		
	09 00	0015	0.017		
	09 00	0050	0.015		
	09 00	0100	0.019		
	09 00	0140	0.019		

K VALUE KNOWN TO BE LESS
THAN INDICATED

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320156
36 06 13.0 114 46 03.0 3
LAKE MEAD
32003 NEVADA

/TYPA/AMBNT/LAKE

11EPALES 760303 04001002
0201 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
75/12/08	15 05	0000	14.8	8.8	216	834	7.85	132	0.020K	0.400	0.250	0.005
	15 05	0015	14.2	8.4		780	7.85	136	0.020K	0.600	0.240	0.003
	15 05	0050	14.1	8.2		791	7.80	129	0.040	0.200	0.260	0.009
	15 05	0100	14.1	6.0		780	7.80	128	0.030	0.200	0.250	0.006
	15 05	0196	12.0	8.2		765	7.50	140	0.020K	0.200K	0.430	0.008

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L	00031 INCDT LT REMNING PERCENT
75/12/08	15 05	0000	0.017	3.8	
	15 05	0015	0.019		
	15 05	0050	0.017		
	15 05	0100	0.015		
	15 05	0196	0.014		

K VALUE KNOWN TO BE LESS
THAN INDICATED

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320157
36 06 36.0 114 45 42.0 3
LAKE MEAD
32003 NEVADA

/TYPA/AMBNT/LAKE

11EPALES 760303 04001002
0194 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
75/12/08	14 40	0000	14.4	8.8	192	805	7.90	127	0.020K	0.200K	0.230	0.005
	14 40	0015	14.2	8.6		794	7.85	129	0.020	0.200K	0.250	0.005
	14 40	0050	14.2	8.2		818	7.80	130	0.020K	0.200K	0.250	0.004
	14 40	0100	14.2	8.2		792	7.80	132	0.020K	0.200	0.240	0.005
	14 40	0189	12.3	5.8		742	7.60	142	0.020K	0.200	0.430	0.011

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L	00031 INCDT LT REMNING PERCENT
75/12/08	14 40	0000	0.015	5.4	
	14 40	0015	0.014		
	14 40	0050	0.018		
	14 40	0100	0.016		
	14 40	0189	0.014		

K VALUE KNOWN TO BE LESS
THAN INDICATED

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320158
36 07 38.0 114 51 45.0 3
LAKE MEAD
32003 NEVADA

/TYPA/AMBNT/LAKE

11EPALES 760303 04001002
0034 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
75/12/10	09 00	0000	14.6	9.8	96	892	7.71	130	0.020K	0.200	0.190	0.005
	09 00	0005	14.5	9.8		893	7.50	127	0.020	0.200	0.190	0.008
	09 00	0015	14.6	9.8		899	7.49	129	0.020K	0.200K	0.190	0.015
	09 00	0030	14.6	10.0		912	7.42	132	0.060	0.300	0.520	0.157

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L	00031 INCDT LT RFMNING PERCENT
75/12/10	09 00	0000	0.032		
	09 00	0005	0.032		
	09 00	0015	0.043		
	09 00	0030	0.179		

K VALUE KNOWN TO BE LESS THAN INDICATED

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320159
36 07 37.0 114 51 16.0 3
LAKE MEAD
32003 NEVADA

/TYPA/AMBNT/LAKE

11EPALES 760303 04001002
0009 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
75/12/10	13 35	0000	13.6	10.6		787	8.10	127	0.020K	0.200	0.160	0.007
	13 35	0007	13.6	11.6		776	8.24	127	0.020K	0.200K	0.130	0.005

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L	00031 INCDT LT REMNING PERCENT
75/12/10	13 35	0000	0.051	19.9	
	13 35	0007	0.044		

K VALUE KNOWN TO BE LESS
THAN INDICATED

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320160
36 07 13.0 114 51 23.0 3
LAKE MEAD
32003 NEVADA

/TYPA/AMBNT/LAKE

11EPALES 760303 04001002
006R FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
75/12/10	09 30	0000	13.5	9.4	144	786	7.41	130	0.020K	0.200	0.210	0.008
	09 30	0005	13.6	9.2		788	7.36	127	0.020K	0.200	0.210	0.005
	09 30	0015	13.5	9.2		788	7.32	125	0.020K	0.200	0.210	0.005
	09 30	0030	13.6	9.0		786	7.30	127	0.020K	0.200	0.210	0.006
	09 30	0050	13.5	9.2		782	7.29	126	0.020K	0.200	0.210	0.015
	09 30	0065	13.3	9.2		858	7.30	127	0.060	0.300	0.560	0.149

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L	00031 INCDT LT REMNING PERCENT
75/12/10	09 30	0000	0.032	15.6	
	09 30	0005	0.026		
	09 30	0015	0.034		
	09 30	0030	0.030		
	09 30	0050	0.040		
	09 30	0065	0.159		

K VALUE KNOWN TO BE LESS
THAN INDICATED

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320161
36 07 07.0 114 50 58.0 3
LAKE MEAD
32003 NEVADA

/TYPA/AMBNT/LAKE

11EPALES 760303 04001002
0094 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
75/12/10	10 00	0000	13.6	8.8	156	780	7.23	124	0.020	0.200	0.230	0.008
	10 00	0005	13.6	8.8		787	7.20	126	0.020K	0.200	0.220	0.005
	10 00	0015	13.6	9.0		789	7.27	133	0.020K	0.400	0.220	0.008
	10 00	0035	13.6	9.6		797	7.29	128	0.020K	0.200	0.210	0.006
	10 00	0050	13.6	8.6		795	7.30	129	0.020K	0.200	0.210	0.006
	10 00	0075	13.6	8.6		782	7.30	128	0.020K	0.200	0.210	0.006
	10 00	0090	13.5	9.0		775	7.30	127	0.020K	0.200	0.210	0.006

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L	00031 INCDT LT REMNING PERCENT
75/12/10	10 00	0000	0.033	5.9	
	10 00	0005	0.028		
	10 00	0015	0.025		
	10 00	0035	0.025		
	10 00	0050	0.025		
	10 00	0075	0.022		
	10 00	0090	0.022		

K VALUE KNOWN TO BE LESS
THAN INDICATED

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320162
36 06 48.0 114 50 47.0 3
LAKE MEAD
32003 NEVADA

/TYPA/AMBNT/LAKE

11EPALES 760303 04001002
0039 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
75/12/10	13 50	0000	13.9	9.6	130	788	7.80	127	0.020K	0.200K	0.200	0.005
	13 50	0005	13.8	9.6		797	7.80	129	0.020K	0.200	0.210	0.005
	13 50	0015	13.7	9.0		800	7.80	128	0.020K	0.200	0.200	0.004
	13 50	0035	13.6	9.6		793	7.81	123	0.020K	0.200K	0.220	0.004

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L	00031 INCDT LT REMNING PERCENT
75/12/10	13 50	0000	0.022	10.4	
	13 50	0005	0.025		
	13 50	0015	0.021		
	13 50	0035	0.021		

K VALUE KNOWN TO BE LESS
THAN INDICATED

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320163
36 07 07.0 114 50 16.0 3
LAKE MEAD
32003 NEVADA

/TYPA/AMBNT/LAKE

11EPALES 760303 04001002
0146 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
75/12/10	10 30	0000	13.8	9.0	156	785	7.30	128	0.020K	0.300	0.210	0.004
	10 30	0005	13.8	8.8		787	7.25	128	0.020K	0.200	0.220	0.005
	10 30	0015	13.7	8.6		795	7.25	126	0.020K	0.300	0.210	0.005
	10 30	0030	13.7	9.0		793	7.22	126	0.020K	0.300	0.210	0.005
	10 30	0050	13.7	9.2		797	7.25	127	0.020K	0.200	0.210	0.007
	10 30	0100	13.6	8.4		792	7.28	127	0.020K	0.200K	0.220	0.018
	10 30	0140	13.0	8.4		1017	7.29	130	0.020K	0.200K	0.230	0.031

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L	00031 INCDT LT REMNING PERCENT
75/12/10	10 30	0000	0.019	7.0	
	10 30	0005	0.021		
	10 30	0015	0.020		
	10 30	0030	0.023		
	10 30	0050	0.022		
	10 30	0100	0.029		
	10 30	0140	0.044		

K VALUE KNOWN TO BE LESS
THAN INDICATED

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320164
36 06 55.0 114 06 55.0 3
LAKE MEAD
32003 NEVADA

/TYPA/AMBNT/LAKE

11EPALES 760310 04001002
0150 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
75/12/09	14 45	0000	14.2	9.2	168	795	7.80	130	0.020	0.200	0.220	0.009
	14 45	0005	14.0	9.0		795	7.80	131	0.020	0.200K	0.220	0.007
	14 45	0015	13.9	8.6		790	7.79	131	0.020K	0.200K	0.220	0.006
	14 45	0050	13.8	8.4		790	7.75	131	0.020K	0.200K	0.220	0.006
	14 45	0100	13.7	8.6		815	7.80	130	0.020	0.200K	0.220	0.010
	14 45	0145	13.6	8.8		790	7.85	126	0.020	0.200	0.220	0.011

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L	00031 INCDT LT REMNING PERCENT
75/12/09	14 45	0000	0.023	1.8	
	14 45	0005	0.021		
	14 45	0015	0.020		
	14 45	0050	0.020		
	14 45	0100	0.022		
	14 45	0145	0.031		

K VALUE KNOWN TO BE LESS
THAN INDICATED

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320165
36 06 29.0 114 49 55.0 3
LAKE MEAD
32003 NEVADA

/TYPA/AMBNT/LAKE

11EPALES 760303 04001002
0062 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
75/12/10	14 00	0000	13.9	9.6	140	793	7.86	123	0.020K	0.200K	0.220	0.006
	14 00	0005	13.8	9.0		795	7.80	123	0.020K	0.200K	0.220	0.006
	14 00	0015	13.8	9.0		793	7.80	125	0.020K	0.200	0.220	0.006
	14 00	0030	13.6	9.0		787	7.73	124	0.020K	0.200	0.210	0.006
	14 00	0058	13.6	9.2		788	7.70	124	0.020K	0.200	0.210	0.005

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L	00031 INCDT LT REMNING PERCENT
75/12/10	14 00	0000	0.023	7.6	
	14 00	0005	0.021		
	14 00	0015	0.022		
	14 00	0030	0.021		
	14 00	0058	0.022		

K VALUE KNOWN TO BE LESS
THAN INDICATED

STORET RETRIEVAL DATE 77/01/22
NATL EUTHOPHICATION SURVEY
EPA-LAS VEGAS

320166
36 07 30.0 114 49 33.0 3
LAKE MEAD
32003 NEVADA

/TYPA/AMBNT/LAKE

11EPALES 760303 04001002
0029 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
75/12/10	11 05	0000	13.9	9.4	132	801	7.36	127	0.020K	0.200	0.200	0.005
	11 05	0005	13.8	9.2		789	7.40	128	0.020K	0.200K	0.200	0.003
	11 05	0015	13.8	9.2		787	7.39	129	0.020K	0.200K	0.200	0.003
	11 05	0025	13.7	9.2		789	7.30	129	0.020K	0.200K	0.200	0.003

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L	00031 INCDT LT REMNING PERCENT
75/12/10	11 05	0000	0.020	10.0	
	11 05	0005	0.021		
	11 05	0015	0.016		
	11 05	0025	0.018		

K VALUE KNOWN TO BE LESS
THAN INDICATED

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320167
36 06 18.0 114 48 52.0 3
LAKE MEAD
32003 NEVADA

/TYPA/AMBNT/LAKE

11EPALES 760310 04001002
0999 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
75/12/09	14 10	0000	14.1	9.2	156	790	7.80	118	0.020K	0.200	0.240	0.005
	14 10	0005	14.3	9.0		800	7.85	120	0.020K	0.200	0.240	0.005
	14 10	0015	14.0	8.6		795	7.80	122	0.020	0.200K	0.230	0.006
	14 10	0050	13.9	8.4		795	7.75	119	0.020	0.200K	0.230	0.006
	14 10	0100	13.9	8.4		795	7.70	125	0.020K	0.200K	0.230	0.007
	14 10	0210	11.6	7.0		735	7.78	125	0.020K	0.200K	0.230	0.006

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L	00031 INCDT LT REMNING PERCENT
75/12/09	14 10	0000	0.019	2.6	
	14 10	0005	0.019		
	14 10	0015	0.020		
	14 10	0050	0.018		
	14 10	0100	0.018		
	14 10	0210	0.021		

K VALUE KNOWN TO BE LESS
THAN INDICATED

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

32016A
36 04 45.0 114 48 06.0 3
LAKE MEAD
32003 NEVADA

/TYPA/AMBNT/LAKE

11EPALES 760303 04001002
0055 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
75/12/10	14 40	0000	14.1	9.2	120	794	7.67	119	0.020K	0.200	0.220	0.006
	14 40	0005	14.0	9.0		814	7.59	118	0.020K	0.200K	0.230	0.006
	14 40	0015	13.8	8.6		796	7.60	119	0.020K	0.200K	0.230	0.006
	14 40	0030	13.9	8.6		808	7.50	120	0.020K	0.200K	0.230	0.006
	14 40	0050	13.8	9.2		802	7.58	121	0.020K	0.200K	0.220	0.006

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L	00031 INCDT LT REMNING PERCENT
75/12/10	14 40	0000	0.023	4.0	
	14 40	0005	0.019		
	14 40	0015	0.019		
	14 40	0030	0.017		
	14 40	0050	0.021		

K VALUE KNOWN TO BE LESS
THAN INDICATED

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320170
36 05 00.0 114 46 01.0 3
LAKE MEAD
32003 NEVADA

/TYPA/AMBNT/LAKE

11EPALES 760303 04001002
0999 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
75/12/11	10 40	0000	14.0	8.6	182	799	7.99	131	0.040	0.200K	0.240	0.005
	10 40	0005	14.1	8.8		820	8.10	131	0.030	0.200	0.230	0.004
	10 40	0015	14.1	8.6		818	8.04	133	0.030	0.200K	0.230	0.005
	10 40	0030	14.0	8.6		795	8.00	136	0.040	0.200K	0.240	0.005
	10 40	0050	14.0	8.4		800	8.03	136	0.050	0.200K	0.240	0.005
	10 40	0100	13.9	8.2		795	7.98	136	0.070	0.200K	0.240	0.010
	10 40	0215	11.7	6.2		790	7.79	147	0.050	0.200K	0.430	0.009

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L	00031 INCDT LT REMNING PERCENT
75/12/11	10 40	0000	0.015	3.1	
	10 40	0005	0.021		
	10 40	0015	0.019		
	10 40	0030	0.019		
	10 40	0050	0.017		
	10 40	0100	0.018		
	10 40	0215	0.015		

K VALUE KNOWN TO BE LESS
THAN INDICATED

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320174
36 01 50.0 114 43 20.0 3
LAKE MEAD
32003 NEVADA

/TYPA/AMBNT/LAKE

11EPALES 760310 04001002
0438 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
75/12/11	13 50	0000	14.3	8.6	264	798	8.00	123	0.030	0.200K	0.240	0.006
	13 50	0005	14.1	8.4		800	7.95	124	0.030	0.200K	0.240	0.007
	13 50	0015	14.0	8.0		806	7.90	124	0.040	0.200K	0.240	0.009
	13 50	0030	14.0	8.0		810	7.88	125	0.040	0.200K	0.240	0.007
	13 50	0060	14.0	8.0		800	8.00	137	0.050	0.200K	0.250	0.007
	13 50	0100	14.0	8.0		800	8.00	136	0.060	0.200K	0.250	0.008
	13 50	0160	13.5	7.2		810	7.89	137	0.060	0.200K	0.300	0.021
	13 50	0180	12.7	5.6		775	7.74	145	0.030	0.200K	0.430	0.011
	13 50	0220	11.5	6.6		732	7.79	148	0.040	0.200K	0.440	0.009

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L	00031 INCDT LT REMNING PERCENT
75/12/11	13 50	0000	0.017	3.2	
	13 50	0005	0.018		
	13 50	0015	0.016		
	13 50	0030	0.016		
	13 50	0060	0.021		
	13 50	0100	0.017		
	13 50	0160	0.029		
	13 50	0180	0.014		
	13 50	0220	0.012		

K VALUE KNOWN TO BE LESS
THAN INDICATED

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320175
36 04 08.0 114 47 30.0 3
LAKE MEAD
32003 NEVADA

/TYPA/AMBNT/LAKE

11EPALES 760303 04001002
0210 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
75/12/10	15 10	0000	14.2	8.6	120	794	7.60	121	0.020K	0.200	0.230	0.006
	15 10	0005	14.1	8.6		796	7.60	123	0.020K	0.200K	0.230	0.006
	15 10	0015	14.0	7.2		796	7.55	123	0.020K	0.200K	0.230	0.006
	15 10	0030	14.0	8.6		795	7.50	124	0.020K	0.200K	0.230	0.006
	15 10	0050	14.0	8.2		794	7.50	122	0.020K	0.200K	0.230	0.007
	15 10	0075	13.8	8.0		793	7.49	120	0.020	0.200K	0.220	0.010
	15 10	0100	13.8	8.2		790	7.48	121	0.020	0.200K	0.220	0.011
	15 10	0150	13.8	8.2		817	7.41	122	0.030	0.200K	0.230	0.013
	15 10	0170	13.5	7.8		787	7.39	124	0.030	0.200K	0.270	0.020
	15 10	0180	12.8	5.6		767	7.20	129	0.020K	0.200K	0.410	0.019
	15 10	0200	11.9	5.8		742	7.22	132	0.020K	0.200K	0.420	0.014

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L	00031 INCDT LT REMNING PERCENT
75/12/10	15 10	0000	0.020	3.2	
	15 10	0005	0.018		
	15 10	0015	0.017		
	15 10	0030	0.016		
	15 10	0050	0.016		
	15 10	0075	0.017		
	15 10	0100	0.019		
	15 10	0150	0.024		
	15 10	0170	0.026		
	15 10	0180	0.029		
	15 10	0200	0.017		

K VALUE KNOWN TO BE LESS
THAN INDICATED

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA-LAS VEGAS

320176
36 03 14.0 114 47 56.0 3
LAKE MEAD
32003 NEVADA

/TYPA/AMANT/LAKE

11EPALES 760303 04001002
0124 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
75/12/11	09 20	0000	13.9	8.2	168	795	7.96	126	0.040	0.200K	0.240	0.005
	09 20	0005	14.0	8.2		800	7.91	128	0.040	0.200	0.240	0.008
	09 20	0015	13.9	8.2		800	7.93	128	0.040	0.200K	0.240	0.006
	09 20	0030	13.9	8.6		797	7.92	128	0.030	0.200K	0.230	0.005
	09 20	0050	13.9	8.2		797	7.90	129	0.050	0.200K	0.240	0.008
	09 20	0100	13.8	8.0		797	7.84	128	0.050	0.200K	0.240	0.011
	09 20	0124	13.7	7.4		795	7.96	126	0.060	0.400	0.250	0.012

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L	00031 INCDT LT REMNING PERCENT
75/12/11	09 20	0000	0.018	3.4	
	09 20	0005	0.018		
	09 20	0015	0.018		
	09 20	0030	0.016		
	09 20	0050	0.019		
	09 20	0100	0.025		
	09 20	0124	0.021		

K VALUE KNOWN TO BE LESS
THAN INDICATED

APPENDIX D

TRIBUTARY AND WASTEWATER TREATMENT PLANT DATA

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA- LAS VEGAS

/TYPA/AMBNT/STREAM

3201A1
36 00 55.0 114 44 16.0 4
COLORADO RIVER
32 15 HOOVER DAM
0/LAKE MEAD
SAMPLE AT BASE OF HOOVER DAM
11EPALES 04001004
0000 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P
74/11/16	10 00		0.464	0.900	0.045	0.010	0.010
74/12/20	11 30		0.448	0.900	0.015	0.010	0.010
75/01/28	12 00		0.336	0.900	0.024	0.020	0.030
75/03/17	15 52		0.340	0.400	0.025	0.020	0.030
75/03/28	09 30		0.345	0.800	0.025	0.020	0.030
75/04/23	11 35		0.170	1.100	0.030	0.040	0.077
75/04/29	10 10		0.360	0.650	0.030	0.025	0.030
75/05/17	10 50		0.085	0.900	0.055	0.005K	0.010K
75/06/30	11 25		0.015	1.600	0.030	0.005K	0.010
75/07/31	09 10		0.005	0.600	0.015	0.010	0.020
75/08/20	09 15		0.410	0.950	0.020	0.015	0.030
75/10/28	09 25		0.420	1.100	0.010	0.015	0.020

K VALUE KNOWN TO BE LESS
THAN INDICATED

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA- LAS VEGAS

/TYPA/AMBNT/STREAM

320142
35 47 00.0 114 50 48.0 4
COLORADO RIVER
32 MOHAVE CO AZ GEN
T/LAKE MEAD 110191
BNK SAMP OFF END OF SEC RD AT PEACH SPRS
11EPALES 04001004
0000 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P
74/12/13	10 45		0.416	0.500	0.030	0.010	0.030
75/02/18	16 45		0.400	0.500	0.008K	0.005K	0.010
75/03/17	16 00		0.510	3.400	0.120	0.110	0.660
75/04/17	14 00		0.470		0.020	0.010	

K VALUE KNOWN TO BE LESS
THAN INDICATED

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA- LAS VEGAS

/TYPA/AMBNT/STREAM

3201C1
36 33 20.0 114 26 30.0 4
MUDDY RIVER
32 15 OVERTON
T/LAKE MEAD 110191
SEC RD BRDG 1 MI N OF OVERTON
11EPALES 04001004
0000 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P
74/11/16	13	00	0.336	1.000	0.055	0.015	0.250
74/12/20	13	25	0.336	1.200	0.030	0.030	0.140
75/01/28	14	20	0.335	1.225	0.064	0.082	0.237
75/03/20	18	00	0.250	1.950	0.090	0.065	1.100
75/03/28	12	15	0.410	1.800	0.025	0.075	0.680
75/04/23	13	20	0.345	1.200	0.070	0.080	0.320
75/04/29	12	00	0.300	1.700	0.085	0.095	0.270
75/05/17	12	40	0.370	1.250	0.055	0.060	0.275
75/06/30	13	25	0.300	0.550	0.035	0.210	0.250
75/07/31	12	15	0.360	2.100	0.070	0.125	0.360
75/08/20	11	10	0.300	1.700	0.035	0.080	0.270
75/10/26	12	05	0.580	1.700	0.045	0.110	0.350

STORET RETRIEVAL DATE 77/01/22
NATL EUTROPHICATION SURVEY
EPA- LAS VEGAS

/TYPA/AMBNT/STREAM

3201D1
36 44 05.0 114 13 10.0 4
VIRGIN RIVER
32 15 VIRGIN PEAK
T/LAKE MEAD 110491
SEC RD 541 BRDG 6 MI SW OF BUNKERVILLE
11EPALES 04001004
0000 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P
74/11/16	14	00	0.384	1.500	0.075		0.560
74/12/20	14	08	0.384	0.700	0.055		0.220
75/01/29	15	25	0.312	0.600	0.056	0.015	0.340
75/03/20	19	15	0.310	4.300	0.030	0.380	4.200
75/03/28	13	25	0.260	2.700	0.030	0.250	4.200
75/04/23	14	15	0.100	1.100	0.040	0.015	0.130
75/04/29	14	20	0.030	0.600	0.070	0.005	0.120
75/05/17	13	40	0.470	2.100	0.045	0.020	1.000
75/06/30	14	30	0.440	1.480	0.130	0.105	0.513
75/07/31	15	50	0.470	1.000	0.155	0.075	0.195
75/08/20	13	05	0.005	0.500	0.025	0.010	0.040

STORET RETRIEVAL DATE 77/02/24
NATL EUTROPHICATION SURVEY
EPA- LAS VEGAS

3201EA TF3201EA P218000
36 08 30.0 115 03 10.0 4
LAS VEGAS
32 15 LAS VEGAS 110191
T/LAKE MEAD
LAS VEGAS WASH
11EPALES 00001004
0000 FEET DEPTH CLASS 00

/AMBNT/STREAM

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P	50051 FLOW RATE INST MGD	50053 CONDUIT FLOW-MGD MONTHLY
74/11/20	06 30		3.680	15.000	3.900	5.600	7.100	12.700	12.300
CP(T)-									
74/11/21	06 30								
74/12/11	10 30		1.740	17.000	4.800	5.500	7.400	12.500	12.800
CP(T)-									
74/12/12	06 30								
75/01/22	04 30		0.880	23.000			7.300	11.200	12.700
CP(T)-									
75/01/23	06 30								
75/02/19	08 30		1.040	23.000	8.800	6.000	7.400	11.100	12.400
CP(T)-									
75/02/20	06 30								
75/03/19	08 30		0.880	21.000	8.000	5.900	7.300	11.700	12.900
CP(T)-									
75/03/20	06 30								
75/04/16	10 30		1.750	21.000	8.100	5.600	7.600	11.700	13.100
CP(T)-									
75/04/17	06 30								
75/05/21	10 30		2.000	16.000	4.800	6.200	6.600	11.800	13.200
CP(T)-									
75/05/22	06 30								
75/06/18	10 00		3.300	17.000	2.600	5.700	6.750	12.600	13.200
CP(T)-									
75/06/19	06 00								
75/08/07	00 00		0.600	18.500	4.900	4.700	6.500	12.500	13.000
CP(T)-									
75/08/07	22 00								
75/09/10	08 30		1.650	16.800	3.900	5.400	6.350	11.900	13.900
CP(T)-									
75/09/11	06 30								
75/10/16	00 00		1.600	18.000	4.700	5.600	8.100	11.300	13.100
CP(T)-									
75/10/16	22 00								
75/11/13	22 00		1.800	23.000	6.400	5.600	7.100	11.000	12.500

STORET RETRIEVAL DATE 77/02/24
NATL EUTROPHICATION SURVEY
EPA- LAS VEGAS

3201E8 TF3201E8 P056000
36 07 30.0 115 02 05.0 4
CLARK CO. E. OUTFALL
32 15 LAS VEGAS
T/LAKE MEAD 110191
LAS VEGAS WASH
11EPALES 00001004
0000 FEET DEPTH CLASS 00

/AMBNT/STREAM

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P	50051 FLOW RATE INST MGD	50053 CONDUIT FLOW-MGD MONTHLY
74/11/20	09 30		1.120	16.000	6.400	6.600	7.100	12.700	10.400
75/01/10			0.400	23.000	6.500	5.800	6.600	12.400	12.400
75/02/11	09 30		0.080	11.000	8.287	6.875	7.000	22.200	9.690
75/03/11	09 00		0.560	25.000	8.030	8.230	8.400	14.100	13.170
75/04/15	09 00		0.950	18.000	2.400		7.700	10.300	13.440
75/05/31	10 00		2.000	18.500	4.000	5.700	5.800	14.600	14.170
75/07/02	09 00		1.100	17.500	4.700	6.200	6.950	15.100	14.100
75/08/08	09 00		4.400	19.500		5.700	6.800	13.700	13.410
75/09/18	09 00		2.200	16.500	0.640	5.400	6.500	15.400	15.170
75/10/17	09 30		1.450	21.000	4.600	7.200	7.900	15.260	15.310
75/11/13	09 30		0.725	22.000	7.300	6.600	7.700	15.600	16.070
75/12/12	09 30		0.800	21.000	2.700	6.300	8.800	15.670	15.860
76/01/09	09 15		0.600	23.000	5.200	6.500	8.100	15.600	16.330
76/02/22	09 30		1.100	15.000	3.300	4.500	5.200	17.700	17.720

STORET RETRIEVAL DATE 77/02/24
NATL EUTROPHICATION SURVEY
EPA- LAS VEGAS

3201EC TF3201EC R056000
36 07 30.0 115 02 05.0 4
CLARK CO. W. OUTFALL
32 15 LAS VEGAS
T/LAKE MEAD 110191
LAS VEGAS WASH
11EPALES 00001004
0000 FEET DEPTH CLASS 00

/AMBNT/STREAM

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P	50051 FLOW RATE INST MGD	50053 CONDUIT FLOW-MGD MONTHLY
74/11/20	09 30		1.200	20.000	5.800	5.500	7.100	10.100	11.200
75/01/10			0.080	29.000	7.500	6.500	7.900	9.500	9.040
75/02/11	09 30		0.400	9.500	5.925	6.000	6.900	9.600	12.800
75/03/11	09 00		0.480	25.000	8.330	7.750	7.900	10.600	10.010
75/04/15	09 00		1.490	20.000	11.400	5.950	8.000	10.250	10.190
75/05/31	10 00		0.350	28.000	18.000	6.400	6.400	10.500	10.500
75/07/02	09 00		0.300	19.000	11.800	5.900	7.050	11.100	13.060
75/08/08	09 00		0.050	25.000	5.300	6.300	8.100	14.200	13.820
75/09/18	09 00		0.925	23.000	3.700	5.400	7.000	11.900	12.260
75/10/17	09 30		1.880	21.000	3.100	5.500	6.500	11.390	11.640
75/11/13	09 30		0.200	30.000	13.500	6.200	7.250	9.620	10.140
75/12/12	09 30		1.300	22.500	5.200	6.600	9.000	9.370	9.420
76/01/09	09 15		0.450	32.000	7.700	6.900	8.300	9.360	9.585
76/02/22	09 30		0.850	19.000	5.100	1.500	2.400	10.400	10.360
76/03/12	09 30		0.725	22.000	5.300	5.400	7.000	25.700	9.828

APPENDIX E

PARAMETRIC RANKINGS OF LAKES SAMPLED BY NES IN 1975

STATE OF NEVADA

Mean or median values for six of the key parameters evaluated in establishing the trophic conditions of Nevada lakes sampled are presented to allow direct comparison of the ranking, by parameter, of each lake relative to the others. Median total phosphorus, median inorganic nitrogen and median dissolved orthophosphorus levels are expressed in mg/l. Chlorophyll a values are expressed in µg/l. To maintain consistent rank order with the preceding parameters, the mean Secchi disc depth, in inches, is subtracted from 500. Similarly, minimum dissolved oxygen values are subtracted from 15 to create table entries.

Reproduced from best available copy.

LAKE DATA TO BE USED IN RANKINGS

LAKE CODE	LAKE NAME	MEDIAN TOTAL P	MEDIAN INORG N	500-MEAN SEC	MEAN CHLORA	15-MIN DO	MEDIAN DISS ORTHO P
3201	LAKE MEAD	0.016	0.340	266.565	3.111	11.400	0.005
3202	LAHONTAN RESERVOIR	0.198	0.350	472.083	4.608	10.400	0.148
3204	RYE PATCH RESERVOIR	0.094	0.050	467.750	4.938	10.000	0.039
3205	LAKE TAHOE	0.005	0.040	-3.269	0.571	10.200	0.003
3206	TOPAZ RESERVOIR	0.057	0.165	376.000	7.517	14.600	0.041
3207	UPPER PAHRANGAT LAKE	0.173	0.125	470.000	---	8.600	0.026
3208	WASHOE LAKE	0.403	0.130	494.555	11.633	7.200	0.268
3209	WILD HORSE RESERVOIR	0.114	0.320	489.400	75.530	14.600	0.065
3210	WILSON RESERVOIR	0.049	0.120	197.333	10.033	11.400	0.016
3211	WALKER LAKE	0.602	0.080	405.333	3.422	15.000	0.574

PERCENT OF LAKES WITH HIGHER VALUES (NUMBER OF LAKES WITH HIGHER VALUES)

LAKE CODE	LAKE NAME	MEDIAN TOTAL P	MEDIAN INORG N	500-MEAN SEC	MEAN CHLORA	15-MIN DO	MEDIAN DISS ORTHO P
3201	LAKE MEAD	89 (8)	11 (1)	78 (7)	88 (7)	39 (3)	89 (8)
3202	LAHONTAN RESERVOIR	22 (2)	0 (0)	22 (2)	63 (5)	56 (5)	22 (2)
3204	RYE PATCH RESERVOIR	56 (5)	89 (8)	44 (4)	50 (4)	78 (7)	56 (5)
3205	LAKE TAHOE	100 (9)	100 (9)	100 (9)	100 (8)	67 (6)	100 (9)
3206	TOPAZ RESERVOIR	67 (6)	33 (3)	67 (6)	38 (3)	17 (1)	44 (4)
3207	UPPER PAHRANAGAT LAKE	33 (3)	56 (5)	33 (3)	---	89 (8)	67 (6)
3208	WASHOE LAKE	11 (1)	44 (4)	0 (0)	13 (1)	100 (9)	11 (1)
3209	WILD HORSE RESERVOIR	44 (4)	22 (2)	11 (1)	0 (0)	17 (1)	33 (3)
3210	WILSON RESERVOIR	78 (7)	67 (6)	89 (8)	25 (2)	39 (3)	78 (7)
3211	WALKER LAKE	0 (0)	78 (7)	56 (5)	75 (6)	0 (0)	0 (0)

Reproduced from best available copy.